

## MEMORANDUM

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**TO:** Craig Cooper/EPA

**COPIES:** Jeff Rosenbloom/EPA  
John Lucero/RDD  
Sheldon Clark/GWRC/TUS

**FROM:** Peter Mock/PHX

**DATE:** January 5, 1990

**SUBJECT:** Proposed Changes to PGA Water Quality Monitoring

**PROJECT:** RDD63600.PM

EPA's contribution to monitoring at PGA consists of semi-annual water quality sampling from 31 wells. These wells are:

- 2 City of Avondale wells - COA #1, COA #2
- 2 Avondale School District wells - AVONSCH #1, AVONSCH #2
- 7 City of Goodyear wells - COG #1, 2, 3, 5, 6, 10 & 11
- 2 Park Shadows Apts. wells - Domestic, Irrigation
- 3 Roosevelt Irrigation Dist. wells - R2.9W, 3.3N; R5.6W, 3.5N; R6W, 4.4N
- 2 Private wells owned by R. Raynor - ATUMBT3, RAYNOR-1
- 2 Phoenix-Goodyear Airport wells - PLA #2, PLA #3
- 1 Sun Cor Farms (formerly Goodyear Farms) well - SC #4A
- 1 Private well owned by Plumb - Plumb Domestic
- 1 Private well owned by Wade - Wade Irrigation
- 1 Abandoned well north of UPI - Boone
- 1 Reclaimed Metals well - RECMET2
- 6 EPA Monitoring wells - EMW-22LC, EMW-23A, EMW-24A, EMW-25A, EMW-26A, EMW-29A

# MEMORANDUM

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RDD63602.PM

Based on recent experience and long-term data from these wells, we recommend the following:

1. Discontinue monitoring of 1 Wade, 1 Plumb, and 2 Raynor wells. Rationale: no detected VOCs to date, significant effort to arrange sampling.
2. Re-establish monitoring of Phillips well during implementation of RA. Rationale: TCE consistently detected above ARARS.
3. Pursue maintenance and monitoring of the Boone well, preferably with UPI. Rationale: Effective Subunit A monitoring well, potential extraction well, UPI does their own WQ monitoring and this well is apparently among their contaminated monitoring wells.
4. Discontinue monitoring of PLA #2, PLA #3. Rationale: slated for abandonment as airport connects to COG water system. PLA #3 is no longer equipped for pumping.
5. Substitute COG #7 for COG #6. Rationale: #7 is downgradient of Subunit C contamination from Phoenix-Goodyear Airport area, whereas #6 is well to the northwest and upgradient.

We were unable to sample 8 wells this month due to equipment difficulties on the owner's end, or we were unable to contact the owner. See attached letter from our sampling subcontractor.



**M E M O R A N D U M**

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Please contact John Lucero or myself to discuss these proposed changes at your earliest convenience.

# GROUNDWATER RESOURCES CONSULTANTS, INC.

CONSULTING HYDROGEOLOGISTS

1020 SOUTH EUCLID AVE.  
TUCSON, ARIZONA 85719  
PHONE (602) 629-0909

December 18, 1989

CHUCK M. DICKENS, P.G.  
DAVID B. HAWKINS  
SHELDON D. CLARK  
KURT J. BLUST  
DINAH H. JASENSKY

Mr. Peter Mock  
CH2M H111  
1620 W. Fountainhead Parkway  
Suite 5550  
P.O. Box 28440  
Tempe, Arizona 85282

— RECEIVED —  
DEC 20 1989  
CH2M HILL/PHOENIX

RE: PGA Temporary Pump Installation

Dear Mr. Mock:

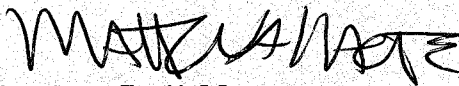
A temporary submersible pump was installed in the Boone production well ((B-2-1) 33dcd) on December 12, 1989. The submersible pump was a 1 horsepower Grundfos. The pump intake was set at 128 feet below land surface. The well was pumped at 20 gallons per minute for 40 minutes.

At the conclusion of sampling, the submersible pump was removed and a steel plate was welded in place. A small hole was cut in the middle of the plate for water level measurement access. The plate was welded in a temporary fashion, and needs further work to provide adequate protection.

In addition, as requested, please find enclosed a table of wells that were not sampled in December 1989. Please advise if you would like us to pursue further attempts at sampling these wells.

Respectfully submitted,

GROUNDWATER RESOURCES CONSULTANTS, INC.

  
Matthew F. Wallace  
Staff Hydrologist

MFW:1kr

Enclosure

cc: Mr. John Lucero

PRODUCTION AND MONITOR WELLS

NOT SAMPLED IN DECEMBER 1989

<u>WELL IDENTIFIER</u>	<u>LOCATION</u>	<u>OWNERS</u>	<u>CONTACT</u>	<u>TELEPHONE</u>	<u>PROBLEM</u>
WADE IRRIGATION ✓	(B-1-1) 19dcd1	RAYNOR	R. RAYNOR	932-1834	UNABLE TO CONTACT OWNER
PLUMB DOMESTIC ✓	(B-1-1) 20ccc	N/A	N/A	N/A	UNABLE TO CONTACT OWNER
RID6W, 4.4N ✓	(B-1-2) 12dad	ROOSEVELT IRRIG. DIST.	BEN DUNKEL	935-4271	WELL NOT PUMPING
RID5.6W, 3.5N ✓	(B-1-1) 18bdc	ROOSEVELT IRRIG. DIST.	BEN DUNKEL	935-4271	WELL NOT PUMPING
GF4A ✓	(B-1-1) 04aab	SUN COR. FARMS	ALFONSO RODRIGUEZ	935-2700	UNABLE TO CONTACT OWNER
RAYNOR-1 ✓	(B-1-1) 21cba	RAYNOR	R. RAYNOR	932-1834	UNABLE TO CONTACT OWNER
PLA-3 ✓	(B-1-1) 16acd3	PHOENIX GOODYEAR AIRPORT	CHET MAYNARD	932-1200	PUMP DISASSEMBLED
EMW-26A	(B-1-1) 21caa	EPA	N/A	N/A	INACCESSIBLE

Time Period (min) Pumping Rate

10	6 - 10	1500 gpm
15	10 - 25	1300 gpm
12.5	25 - 37.5	1300 gpm
12.5	37.5 - 50	1300 gpm
26.5	50 - 76.5	1280 gpm
10.5	76.5 - 87	1250 gpm
10	87 - 97	1250 gpm
10.5	97 - 107.5	1250 gpm
10	107.5 - 117.5	1250 gpm
9.5	117.5 - 127	1240 gpm
9.5	127 - 136.5	1230 gpm
9.5	136.5 - 146	1230 gpm
10.5	146 - 156.5	1230 gpm
10	156.5 - 166.5	1220 gpm
10	166.5 - 176.5	1220 gpm
10.5	176.5 - 187	1220 gpm
9.5	187 - 196.5	1220 gpm
16.5	196.5 - 213	1210 gpm
21.5	213 - <del>234.5</del> 234.5	1210 gpm
22.5	234.5 - 258	1200 gpm
29	258 - 287	1200 gpm
32.5	287 - 319.5	1200 gpm
30	319.5 - 349.5	1200 gpm
30.5	349.5 - 380	1190 gpm
29.5	380 - 409.5	1190 gpm
27.5	409.5 - 437	1210 gpm
23.17	437 - 460.167	1200 gpm

Weighted Average Q = 1229 gpm

$$1 \text{ hrs S.C.} = \frac{1229 \text{ gpm}}{52.84} = 23$$

COG #11

1/2

DDN

PUMP ON @ 6:26:40 AM

bottom bowls - 145'

COG #11 Dynamic Testing 4/28/88

16.83' @ 6.22 T.O. 1" sanding pipe (temporary)

Time (min)	PTW	pH	MC	Temp (°C)
33	130' - 2.10'			
38	130' - 1.71'			
43	130' - 1.29'			
46	130' - 1.01'			
51	130' - 0.75'			
56	130' - 0.53'			
61	130' - 0.33'	6.7	1210	25.2
71	130' - 0.02'	6.8	<del>1220</del> <del>1280</del> 1280	25.3
82	130' + 0.19'	7.3	1200	25.2

1280 gpm

1250 gpm

checked calibration on pH - still same as  
before sampling

1250 gpm 92	130' + 0.45'	7.4	1220	25.2
1250 gpm 102	130' + 0.64'	7.4	1220	25.1
1250 gpm 113	130' + 0.84'	7.4	1230	25.3
1240 gpm 122	130' + 1.02'	7.4	<u>1360</u>	25.3
1230 gpm 132	130' + 1.16'	7.4	<u>1350</u>	25.4
1230 gpm 141	130' + 1.29'	7.4	<u>1320</u>	25.4
1230 gpm 151	130' + 1.37'	7.5	<u>1320</u>	25.2
1220 gpm 162	130' + 1.47'	7.4	<u>1310</u>	<del>24.9</del> 25.0
1220 gpm 171	130' + 1.51'	7.5	<u>1320</u>	25.1
1220 gpm 182	130' + 1.59'	7.5	<u>1320</u>	25.2
1220 gpm 192	130' + 1.64'			

Took well  
head samples

$$\sqrt{238} = 47$$

$$\frac{225}{23.5} = 24.5$$

COG#11 2/2  
DDW

Q	Time (min)	DTW	pH	K	Temp
1200 gpm	20 <u>1</u>	130 + 1.68	7.5	1320	25.3
1200 gpm	24 <u>5</u>	130 + 1.80			25.2
2000 gpm	27 <u>2</u> 244	130 + 1.91	7.6	1290	25.5
1200	30 <u>2</u>	130 + 2.06	7.5	1380	25.4
1200	33 <u>7</u>	130 + 2.24	7.6	1320	25.4
1190	36 <u>2</u>	130 + 2.36	7.6	1350	25.5
1190	39 <u>8</u>	130 + 2.45	7.5	1200	25.4
1210	42 <u>1</u>	130 + 2.56	7.4	1350	25.4
1200	45 <u>3</u>	130 + 2.66	7.7	1360	25.6
		130 + 2.61			

6:15  
78.21' - TO Metal Plate

4/28/88

Amcor #1  
DON

P. Muck / PHX

1/1

Dynamic Sampling - City of Goodyear #11 (B-1-1) ITGadZ  
Water levels in observation well Amcor #1 (B-1-1) ITGadZ

T (min) DTW

T (min) DTW

1	1.5	81.53	82.40
2	2.5	82.86	83.33
3	3.5	83.33	83.76
4	4.5	84.31	84.52
5	5.5	84.78	84.91
6		85.05	
7		85.33	
8		85.51	
9		85.72	
10		85.87	
11		86.03	
12	13	86.18	86.30
14	15	86.42	86.53
16		86.62	
18		86.78	
20		86.94	
22		87.07	
24		87.21	
26		87.32	
28		87.42	
30		87.52	
35		87.76	
40		87.94	
45		88.11	
50		88.27	
55		88.41	
60.5		88.55	

70	1:10	88.76	88.81
80	1:20	88.94	
90	1:30	89.11	
100	1:40	89.25	
110		89.38	
120	2:00	89.50	
130.5	2:10	89.61	
140	2:20	89.71	
150	2:30	89.79	
160	2:40	89.88	
170	2:50	89.97	
180	3:00	90.04	
191.40	3:10	90.12	
200	3:20	90.18	
221.20	3:40	90.32	
242.5	4:00	90.44	
270	4:30	90.58	
300	5:00	90.72	
335	5:35	90.86	
361	6:00	90.97	
392	6:30	91.08	
420	7:00	91.18	
450	7:30	91.26	

61' from COG #11 to  
Amcor #1 by tape measure

1500 gpm  
Rockwell  
In-line  
turbine  
flow meter

1300 gpm

1300 gpm

1300 gpm

1300 gpm



SWL was  
76.83

7:40:10  
add 10

Recovery in COG #11 (B-1-1) 17 and 2

<u>T</u>	<u>T'</u>	<u>DTW</u>		<u>T</u>	<u>T'</u>	<u>DTW</u>
	0.5	101.40	s		30	81.42
	1.0	94.90	s		35	81.62
	1.5	92.58	s		40	81.39
	2.0	90.85	s		45	81.19
	2.5	89.75	s		50	81.01
	3.0	88.74	s		55	80.84
	3.5	88.10	s		60	80.72
	4.0	87.54	s		65	80.58
	4.5	87.08			70	80.47
	5.0	86.65			75	80.35
	6.0	86.03			80	80.26
	7	85.58			85	80.18
	8	85.14			90	80.10
	9	84.78		<u>T'</u>	100	80.20
	10	84.48		109 <sup>18</sup>	<del>100</del>	79.9
	11	84.21		117 <sup>41</sup>	<del>100</del>	79.8
	12 <sup>10</sup>	84.00		126 <sup>52</sup>	<del>100</del>	79.7
	13	83.83		137 <sup>03</sup>	<del>100</del>	79.6
	14	83.56		148 <sup>38</sup>	<del>100</del>	79.5
	15	83.45		161 <sup>27</sup>	<del>100</del>	79.4
	17 <sup>10</sup>	83.08		165 <sup>50</sup>	<del>100</del>	79.3
	19 <sup>00</sup>	82.88		176 <sup>50</sup>	<del>100</del>	79.2
	21	82.66		194 <sup>26</sup>	<del>100</del>	79.2
	23	82.46		214 <sup>41</sup>		79.1
2	25	82.26		236 <sup>18</sup>		79.0
4	27	82.15		260 <sup>18</sup>		78.9
2				290 <sup>00</sup>		78.8

5 58 PM

END @ 6 50 PM



SAMPLED BY AND TITLE (SIGNATURE) <i>Peter G. Mock Hydrogeologist</i>		DATE/TIME <i>4/26/15:00</i>	RELINQUISHED BY: (SIGNATURE) <i>Peter G. Mock</i>	DATE/TIME <i>4/26/17:45</i>	RECEIVED BY: (SIGNATURE) <i>M. Thomas</i>	<i>4/1/15</i>
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY LAB: (SIGNATURE)	
REMARKS				SAMPLE SHIPPED VIA <input type="checkbox"/> UPS <input type="checkbox"/> BUS <input checked="" type="checkbox"/> FEDERAL EXPRESS		AIR BUS BILL NUMBER <i>7569454793</i>



4817 DISTRICT BLVD. • BAKERSFIELD, CA • 93313

JOB TICKET  
12687Operator D. J. KATON / B. CORRELLJob Date 4/26, 20/86Customer's Order No. VERBAL - TOWN HALLOperating Base TENNESSEECharge to CH2 M HILL

Invoice Address \_\_\_\_\_

City & State PHOENIX, AZWell No. 511 Location CITY OF GOODYEAR

## CONDITIONS OF THIS CONTRACT

## TO WELENCO:

You are hereby requested to furnish the service and materials herein set forth upon the following terms and conditions:

The undersigned, as customer, agrees to pay you for the services and/or materials ordered hereunder at the office of Welenco, Bakersfield, California. Should any account not be paid within the term fixed by the invoice, interest will be charged at the rate of eighteen per cent (18%) per annum from the date of such invoice.

Customer certifies that it is the owner of the well on which the work herein ordered is to be done or that it has the full right and authority to order such work done on such wells.

Customer further agrees that the General Terms and Conditions set forth on the reverse side of this document constitute the entire agreement and that no employee of your company is authorized to alter the terms hereof. I have read and understand the terms of this contract and represent that I am authorized to sign the same as agent of customer.

I DO \_\_\_\_\_ DO NOT ☒ wish to purchase Instrument Protection Coverage.

Customer		Agent	
Description	Price	Amount	
1) MOBILIZE AND CLEANUP		4100.00	
2) RUN GAMMA NEUTRON COUNTER, TEMPERATURE, RESISTIVITY, SPINNER AND BRINE INJECTION LOGS w/ Pump (SWATH)		19000.00	
3) RUN TEMPERATURE, RESISTIVITY, AND SPINNER w/ PUMP (DYNAMIC)		10400.00	
4) OBTAIN DEPTH SPECIFIC SAMPLES 9 WATER SAMPLES @ 250.00 EACH		22500.00	
5) DECONTAMINATION OF PERSONNEL AND EQUIPMENT 24 HRS @ 75/HR.		15000.00	
		59400.00	

I certify that the above work has been performed.

Agent F. Peter A. Mack

Remarks: \_\_\_\_\_

## GENERAL TERMS AND CONDITIONS

IN CONSIDERATION OF THE PRICES HEREINAFTER SET OUT, IT IS UNDERSTOOD THAT THE SERVICES OFFERED BY US ARE TO BE PERFORMED ONLY UNDER THE FOLLOWING TERMS AND CONDITIONS:

1. Terms of Payment. Terms of payment are net cash 30 days following invoice date. Interest at 18% per annum will be charged on invoices unpaid 60 days after invoice date. All prices are exclusive of any Federal, State or other taxes on the sale or use of the merchandise and services listed; which taxes will be added to quoted prices where applicable. If unpaid amounts are collected through legal proceedings or by an attorney, Customer shall pay reasonable attorneys' fees and court costs.

2. A reasonable attempt will be made by us to get from the highway to the location and back again under our own power. If tractors or other types of equipment or services are required to give us access to or return from the well location, same will be provided by the customer at his expense. On jobs where our equipment is transported by a conveyance belonging to or arranged for by the Customer, the Customer shall be responsible for the undamaged and safe return to the point of embarkation of all our equipment.

3. We endeavor to design and maintain our equipment to safely service properly drilled and conditioned wells. We carry public liability and property damage insurance. As there are so many conditions in and around wells which are uncertain and unknown and not subject to our control, we can neither guarantee the results nor be liable for injuries to property or persons nor for loss or damage arising from the performance of our services or resulting therefrom.

4. In the event any of our instruments or equipment is lost in the well, customer shall either recover same without cost to us, or (unless Instrument Protection Charge has been purchased) pay for such instruments or equipment. In case it is necessary for Customer to "fish" for any of our instruments or equipment, Customer assumes the entire responsibility for such operations, but we will, if so desired by Customer, without any responsibility or liability on our part, render assistance in an advisory capacity for the recovery of such equipment and instruments. None of our employees is authorized to do anything other than advise and consult with Customer in connection with such "fishing" operations and any "fishing" tools furnished by us are furnished solely as an accommodation to the Customer, and we shall not be liable or responsible for any damage that Customer may incur or sustain through their use by reason of any advice or assistance rendered to Customer by our agents or employees, irrespective of cause.

5. Notwithstanding the provisions of Paragraph 4 hereof, if Customer chooses to purchase the Instrument Protection Charge (which is only offered when well conditions are normal), which choice must be exercised before operations begin, Customer is relieved of liability to pay for repair costs to subsurface equipment (which shall mean the cablehead and all equipment below the cablehead) damaged by recovery operations and replacement costs of subsurface equipment lost in the well. The protection to Customer given by the Instrument Protection Charge is only effective once Customer has made every reasonable effort to recover the equipment lost. A reasonable fishing effort is at least three complete attempts to reach and recover the equipment lost not counting any attempt to recover lost cable. Welenco in its discretion may choose not to provide the protection given by the Instrument Protection Charge when it considers the well conditions to be other than normal. The Instrument Protection Charge does not cover damage to equipment in other than normal well conditions.

6. In accepting an order to perform or attempt to perform any service involving the use of radioactive material, Welenco does so with the understanding that we do not guarantee results, and Customer agrees that we shall not be liable or

responsible for injury to or death of persons or damage to property (including but not limited to injury to the well), or any damages whatsoever, irrespective of the cause, growing out of or in any way connected with our use of radioactive material. Customer acknowledges that he is aware of the fact that radioactive sources used in logging are potentially dangerous to humans and animals; should the source be lost in the well bore, special precautions must be taken in fishing in order that the container of the source is not broken or damaged; and the source, if not recovered, must be isolated by cementing it in place or by some other appropriate means that is in compliance with the policies of the applicable regulatory agencies. Customer shall absolve and hold Welenco, its agents, servants, officers and employees harmless against all loss, costs, damages and expenses incurred or sustained by Customer or any third party, irrespective of the cause including negligent acts or omissions by Welenco, its agents, servants, officers or employees, resulting from any such use of radioactive material. Pursuant to regulations established by the Arizona Radiation Regulatory Agency, when services are undertaken in that state which require the use of radioactive materials, a written agreement must be entered into between Welenco and Customer which specifies procedures to be carried out in the event a radioactive source is lodged or lost in a well bore.

7. In making any interpretation of logs, our employees will give Customer the benefit of their judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical or other measurements, we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not be liable or responsible for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our officers, agents or employees. Welenco does not warrant or guarantee the accuracy of log data, specifically including (but without limitation) the accuracy of log data transmitted by electronic process, and, Welenco will not be responsible for accidental or intentional interception of such data by third parties.

8. If Customer is not the sole owner of well in respect of which Welenco is requested to provide services, but shares ownership with one or more third parties, or is acting as agent for these parties, Customer represents, warrants and covenants that Customer is the duly constituted and authorized agent of each of such third parties with full powers to represent the interests thereof to the same effect and extent as if the Customer were sole owner.

9. All the preceding terms and conditions shall also apply in favor of any manufacturer or supplier of equipment that we may use in the well.

10. Information derived by us in rendering our services will be held in strict confidence and will be released only upon approval of the Customer.

11. The Customer shall have a responsible representative present to issue orders relative to the service or services to be performed.

12. Our cables, bridles and downhole instruments are designed to operate under conditions normally encountered in the well bore. Under extreme conditions, they may be seriously damaged by corrosive gases, chemicals or other substances in the well bore. Customer shall pay for equipment damaged beyond repair by such causes.

13. No employee is empowered to alter the above terms and conditions.

FAILURE TO ENFORCE ANY OR ALL OF THE ABOVE TERMS AND CONDITIONS IN A PARTICULAR INSTANCE OR INSTANCES SHALL NOT CONSTITUTE A WAIVER OF, OR PRECLUDE SUBSEQUENT ENFORCEMENT OF, ANY OR ALL OF THE ABOVE TERMS AND CONDITIONS.



Engineers  
Planners  
Economists  
Scientists

March 10, 1988

W63600.FL

Mr. Richard Swensen  
Operations Divisions  
Arizona Department of Water Resources  
99 East Virginia  
Phoenix, Arizona 85004

Subject: Change of Well for Hydroglogic  
Testing Permit 59-520390(P)

Dear Dick:

For the convenience of the well owner, we are changing the proposed logging and sampling work from the abandoned well (B-1-1)17AAD1 to the existing production well (B-1-1)17AAD2 (#55-501892). These two wells are within 50 feet of one another and have similar construction. Please exchange the wells on the permit application. You should call me at (602) 893-6155 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Peter A. Mock".

Peter A. Mock, P.G.  
Project Hydrogeologist

cc: Bob Henckel/ADWR Hydrology  
Jeff Rosenbloom/EPA Region IX

PHC1/137



## TELEPHONE CONVERSATION RECORD

Date 3/8/88 Time 2:30 <sup>a.m.</sup><sub>p.m.</sub> Phone No. 932-3910 Project No. W63600.FL

☒ To (A) Steve Cleveland / City of Good year

☐ From (B) \_\_\_\_\_

Subject Amcor #2 Access

Not in - left message

He called back 3/10/88

- ① Will sign lease in next 30 days
- ② Will work together on Amcor #2 testing
- ③ Let's meet again - EPA, citizen, COG, Stevens  
Possibly update city council
- ④ Need lists of meetings & Attendance  
for COG

★

- COG could have been compensated  
for time and effort through EPA  
- need comprehensive documentation

COG #1 high concentrations



BY

Peter Mock



P E R M I T

PERMIT NO. P-520390

FILE NO. B(1-1)17 add

STATE OF ARIZONA

REGISTRATION NO. 55-501892

Approval is herein granted, pursuant to A.R.S. 45-519.01, for the Permittee to construct and/or operate a well or wells for hydrologic testing. This approval is expressly limited to the specific location, withdrawal limitations, testing purpose and duration as set forth below. If the Permittee wishes the Department to review the imposition of any of the limitations or special conditions, he may ask for such a review within fifteen (15) days of receipt of this Permit. Such a request must be made prior to the commencement of drilling. The well(s) authorized by this Permit shall be drilled and constructed in accordance with applicable statutes and Department regulations.

**U. S. Environmental Protection Agency**

Permittee 415 Fremont Street(T-4-2), San Francisco, CA 94105

Active Management Area Phoenix Subbasin West Salt River Valley

Authorized purpose of hydrologic testing Geophysical logging and depth-specific water quality sampling.

Total amount of groundwater to be withdrawn is 8.0 acre feet.

Duration of Permit: From March 31, 1988 to June 31, 1988

Land on which groundwater may be used NA

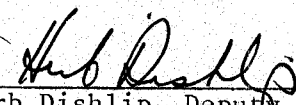
Authorized well(s) from which groundwater may be withdrawn:

Registration No.	Location	Depth	Casing	Case Type
55- <u>501892</u>	<u>B(1-1)17 add</u>	<u>400'</u>	<u>20"</u>	<u>NA</u>
55- _____	Location _____			
55- _____	Location _____			
55- _____	Location _____			

CONDITIONS OF THE PERMIT:

- o The drilling of the well(s) and completion of testing must be accomplished within 90 days from date of the issue of drilling authority.
- o Within 60 days upon completion of logging and testing, the permittee shall provide the results of the test data to our Hydrology Division for evaluation.
- o This approval for a test well(s) and a pump test does not constitute a commitment by the Department for the granting of a withdrawal permit or converting the test well into a production well.

Witness my hand and seal of office this 31st day of March, 19 88.

  
Herb Dishlip, Deputy Director



DEPARTMENT OF WATER RESOURCES  
99 East Virginia Avenue  
Suite 100  
Phoenix, Arizona 85004

CHANGE OF WELL INFORMATION

Registration No. 55-501892

I request the following information be changed in Well File Number B(1-1)17 aad

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_, 19\_\_\_\_ Signature of Well Owner \_\_\_\_\_

STATEMENT OF CHANGE OF WELL OWNERSHIP

I, \_\_\_\_\_, state that I am (no longer) the  
(new) owner of the well described below:

Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_, \_\_\_\_\_  $\frac{1}{4}$  \_\_\_\_\_  $\frac{1}{4}$  \_\_\_\_\_  $\frac{1}{4}$

Registration #55- \_\_\_\_\_ File No. \_\_\_\_\_

Previous Owner \_\_\_\_\_ New Owner \_\_\_\_\_

Address \_\_\_\_\_ Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

NOTE: ARS §45-593 requires that the Department be notified of change of well ownership and that the well owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within 30 days after changes take place.

NOTE: SAVE THIS FORM TO REPORT FUTURE  
CHANGES IN OWNERSHIP OR WELL  
DATA SUCH AS PUMP CAPACITY, ETC.



## TELEPHONE CONVERSATION RECORD

Date 4/7/88 Time 2:35 <sup>a.m.</sup><sub>p.m.</sub> Phone No. 255-1581 Project No. WL3600-FL

☐ To (A) \_\_\_\_\_

☒ From (B) Rosemary / ADWR

Subject \_\_\_\_\_

Hydrologic Testing Permit (B-1-1) 17AAD2

Approved 3/23

#59-520390

Needs \$50 Fee



BY \_\_\_\_\_

CHOW Hill California, Inc.  
9830 S. 51st. St  
Phx., AZ 85044

STATE OF ARIZONA  
DEPARTMENT OF WATER RESOURCES  
WATER RIGHTS ADMINISTRATION  
99 EAST VIRGINIA  
PHOENIX, ARIZONA 85004

RECEIPT

KIND ENTRY	FILE REFERENCE NO.
59	520390
	THRU

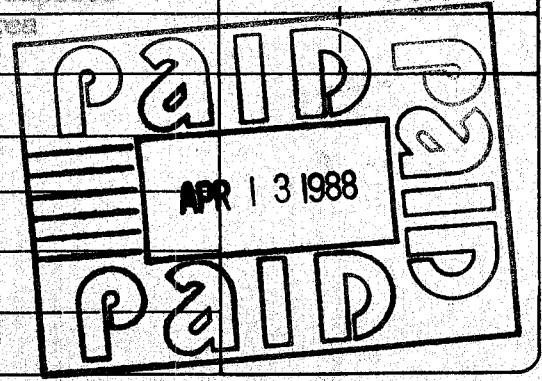
For: U.S. Environmental Protection Agency

FUND SOURCE	ACCOUNT NO.			INT. ACCT.	ITEM DESCRIPTION	RATE	\$ AMOUNT
	AGENCY	CHAPTER	DIV.				
					Permit fee for Permit to Withdraw Ground- water for Hydrologic Testing Purposes within an Active Management Area		50.00
					File No. B(1-1)17 and		
					Registration No. 59-520390		
					Check No. 256		

4/13/88

TOTAL

\$ 50.00





# Arizona Department of Water Resources

99 East Virginia Avenue  
Phoenix, Arizona 85004  
(602) 255-1553

Evan Mecham, Governor  
Alan P. Kleinman, Director

April 13, 1988

U. S. Environmental Protection Agency  
415 Fremont Street (T-4-2)  
San Francisco, CA 94105

Permit No. 59-520390  
File No. B(1-1)17 aad

Dear Permittee:

Enclosed for your records is your Hydrologic Testing Permit.

For your future use, a Change of Well Information form is also enclosed. Under A.R.S. §45-592, the person to whom a well is registered must notify this Department of a change in ownership of the well and must furnish the Department any information pertaining to the physical characteristics of the well necessary to keep the well registration records current and accurate. The permit itself may be conveyed only in accordance with A.R.S. §45-520.

Sincerely,

*for Richard A. Gessner*  
Richard A. Gessner  
Chief, Operations Division

RAG:rh  
Enclosures

DEPARTMENT OF WATER RESOURCES  
99 East Virginia  
Phoenix, Arizona 85004

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER  
FOR HYDROLOGIC TESTING PURPOSES  
WITHIN AN ACTIVE MANAGEMENT AREA

I INSTRUCTIONS

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is \$50.00.
4. Permit fee of \$50.00 will be requested prior to issuance of permit.
5. Use explanatory section on back for clarification, if necessary.

DO NOT WRITE IN THIS SPACE  
OFFICE RECORD

Application No. \_\_\_\_\_  
Permit No. \_\_\_\_\_  
File No. \_\_\_\_\_  
Filed by \_\_\_\_\_ By \_\_\_\_\_  
Input \_\_\_\_\_ By \_\_\_\_\_  
Duplicate \_\_\_\_\_  
Mailed \_\_\_\_\_ By \_\_\_\_\_  
AMA \_\_\_\_\_ S/B \_\_\_\_\_ W/S \_\_\_\_\_

II GENERAL DATA

1. NAME OF APPLICANT U.S. Environmental Protection Agency  
Mailing address 415 Fremont Street (T-4-2)  
SAN FRANCISCO CA 94105 (415) 974-9565  
City State Zip Code Telephone number

2. PURPOSE OF THIS TESTING PERMIT (check only one box)

- ☐ To obtain groundwater samples not exceeding 3 acre feet per annum for testing groundwater quality in order to comply with applicable environmental controls for a period of up to 10 years. - A.R.S. 45-519.01.A.
- ☒ To test hydrologic characteristics and conditions, including groundwater quality. Groundwater withdrawn shall not exceed 10 acre feet nor shall the period of withdrawal exceed 90 days. - A.R.S. 45-519.01.B.
- ☐ To withdraw more than 10 acre feet of groundwater for hydrologic testing purposes, and/or for a period greater than 90 days - include specifics of testing circumstances that require such withdrawal and/or period. - A.R.S. 45-519.01.D.

3. Groundwater will be withdrawn within the Western Salt River Valley sub-basin of the Phoenix Active Management Area.

4. State your plan for disposing of the groundwater withdrawn Discharge to Tail water ditch which discharges to Gila River.

5. The specific purpose of the hydrologic testing is: Geophysical Logging and depth-specific water quality sampling.

6. Total amount of groundwater for which application is being made: 8 acre feet.

7. Proposed duration of the hydrologic testing 14 Days ☒ Months ☐

8. State the testing circumstances that require withdrawals in excess of 10 acre feet or a testing period for more than 90 days: None

9. Groundwater to be withdrawn by means of:

A. Existing wells:

<u>Registration No.</u>	<u>Location</u>	<u>Depth</u>	<u>Casing</u>	<u>Case Type</u>
55- <u>B05146 L</u>	<u>(B-1-1) 17 AAD1</u>	<u>460</u>	<u>20</u>	<u>Steel</u>
55- _____	_____	_____	_____	_____

B. New wells:

<u>Registration No.</u> (Dept. to Complete)	<u>Location</u>	<u>Depth</u>	<u>Casing</u>	<u>Case Type</u>
55- _____	_____	_____	_____	_____
55- _____	_____	_____	_____	_____
55- _____	_____	_____	_____	_____

10. State your plans for the well(s) after testing is completed: \_\_\_\_\_

Re-cap and leave as before - unused.

11. If new well(s) is to be drilled, complete the following information relating to the driller:

Driller's name \_\_\_\_\_ DWR License No. \_\_\_\_\_

Address \_\_\_\_\_

It is understood that the Permit, if granted, will be in accordance with the Groundwater Management Code (Title 45, Chapter 2). The permittee will be bound by the provisions of such law and the provisions of the Permit issued.

Signature of Applicant Peter A. Mork Date 2/8/03

## DEPARTMENT OF WATER RESOURCES

99 East Virginia

Phoenix, Arizona 85004

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER  
FOR HYDROLOGIC TESTING PURPOSES  
WITHIN AN ACTIVE MANAGEMENT AREA

## I INSTRUCTIONS

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is \$50.00.
4. Permit fee of \$50.00 will be requested prior to issuance of permit.
5. Use explanatory section on back for clarification, if necessary.

DO NOT WRITE IN THIS SPACE  
OFFICE RECORD

Application No. \_\_\_\_\_  
 Permit No. \_\_\_\_\_  
 File No. \_\_\_\_\_  
 Filed by \_\_\_\_\_ By \_\_\_\_\_  
 Input \_\_\_\_\_ By \_\_\_\_\_  
 Duplicate \_\_\_\_\_  
 Mailed \_\_\_\_\_ By \_\_\_\_\_  
 AMA \_\_\_\_\_ S/B \_\_\_\_\_ W/S \_\_\_\_\_

## II GENERAL DATA

1. NAME OF APPLICANT U.S. Environmental Protection Agency  
 Mailing address 415 Fremont Street (T-4-2)  
SAN FRANCISCO CA 94105 (415) 974-9565  
 City State Zip Code Telephone number

## 2. PURPOSE OF THIS TESTING PERMIT (check only one box)

- ☐ To obtain groundwater samples not exceeding 3 acre feet per annum for testing groundwater quality in order to comply with applicable environmental controls for a period of up to 10 years. - A.R.S. 45-519.01.A.
- ☒ To test hydrologic characteristics and conditions, including groundwater quality. Groundwater withdrawn shall not exceed 10 acre feet nor shall the period of withdrawal exceed 90 days. - A.R.S. 45-519.01.B.
- ☐ To withdraw more than 10 acre feet of groundwater for hydrologic testing purposes, and/or for a period greater than 90 days - include specifics of testing circumstances that require such withdrawal and/or period. - A.R.S. 45-519.01.D.

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4. State your plan for disposing of the groundwater withdrawn Discharge to Tail water ditch which discharges to Gila River.

5. The specific purpose of the hydrologic testing is: Geophysical Logging and depth-specific water quality sampling.

6. Total amount of groundwater for which application is being made: 8 acre feet.

7. Proposed duration of the hydrologic testing 14 Days ☒ Months ☐

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9. Groundwater to be withdrawn by means of:

A. Existing wells:

<u>Registration No.</u>	<u>Location</u>	<u>Depth</u>	<u>Casing</u>	<u>Case Type</u>
55- <u>B05146 L</u>	<u>(B-1-1)17AAD1</u>	<u>460</u>	<u>20</u>	<u>Steel</u>
55-_____	_____	_____	_____	_____

B. New wells:

<u>Registration No.</u> (Dept. to Complete)	<u>Location</u>	<u>Depth</u>	<u>Casing</u>	<u>Case Type</u>
55-_____	_____	_____	_____	_____
55-_____	_____	_____	_____	_____
55-_____	_____	_____	_____	_____

10. State your plans for the well(s) after testing is completed: \_\_\_\_\_

Re-cap and leave as before - unused.

11. If new well(s) is to be drilled, complete the following information relating to the driller:

Driller's name \_\_\_\_\_ DWR License No. \_\_\_\_\_

Address \_\_\_\_\_

It is understood that the Permit, if granted, will be in accordance with the Groundwater Management Code (Title 45, Chapter 2). The permittee will be bound by the provisions of such law and the provisions of the Permit issued.

Signature of Applicant

Peter A. Mook

Date

2/8/03



## TELEPHONE CONVERSATION RECORD

Date 2/25/80 Time 4:25 <sup>a.m.</sup><sub>p.m.</sub> Phone No. 932-3910 Project No. WL3600.FL

☒ To (A) Steve Cleveland / COG

☐ From (B) \_\_\_\_\_

Subject AMCOR #2 Access

Not in -

I left message to call about AMCOR  
well @ Bullard & Yuma Roads



BY \_\_\_\_\_



## TELEPHONE CONVERSATION RECORD

Date 2/25/88 Time 4:20 <sup>a.m.</sup><sub>p.m.</sub> Phone No. 264-6424 Project No. W63600.FL

X To (A) Glen Bush / Yost & Gardner (City of Goodyear)

☐ From (B) \_\_\_\_\_

Subject AMCOR #2 Access

Not sure that the city has lease  
- check w/ Steve C.

Doesn't appear ~~there~~ to be a problem to  
have the work done because of giant  
storage reservoir



BY \_\_\_\_\_



## TELEPHONE CONVERSATION RECORD

Date 2/23/88 Time 11:20 <sup>a.m.</sup> p.m. Phone No. 957-7170 Project No. W63600.FL

☒ To (A) Kelly House / Amcor

☐ From (B)

Subject Amcor #1 Access

(Jeff R. had told me he had discussed our indemnification agreement w/ Jeff Erhardt / Amcor legal & that they would again discuss it internally)

What is status of our agreement?

- Kelly didn't know, but he checked with Jeff Erhardt to get a decision while I waited on the line

Result: Jeff E. had discussed with Jeff R. Amcor's position & we're stuck where we were

What about Amcor #2 - Production well (Kelly's idea - well is leased to COG)

★ He will check w/ his people about different liability for Amcor with #2 well & COG use of well

I will relay problem to Jeff R.  
(They thought he would call back)

he called back 11:40 am

Kelly says it's their well - You can work on it with City of Goodyear (3 weeks ago this changed) For these purposes it's the City's well!!

BY Peter Mock





## TELEPHONE CONVERSATION RECORD

Date 2/12/88 Time 2:25 <sup>a.m.</sup><sub>p.m.</sub> Phone No. 957-7170 Project No. W63600.FL

☒ To (A) Kelly House / Amcor

☐ From (B) \_\_\_\_\_

Subject AMCOR #1 access

Not in - left message to return my call  
He called back 3:40 pm

I said we can't sign it (proposed agreement)  
- we're turning it over to EPA  
they will pursue access

He said to contact him - tell EPA what  
they proposed



BY \_\_\_\_\_



## TELEPHONE CONVERSATION RECORD

Date 2/12/83 Time 2:40 <sup>a.m.</sup><sub>p.m.</sub> Phone No. \_\_\_\_\_ Project No. W63600.FL

☒ To (A) Dan Smith / DNV

☐ From (B) \_\_\_\_\_

Subject Amcor revised agreement (proposed by Amcor)

My Q - Can we drop "negligent" and  
"or omissions" from Paragraph 3?

A - No - we can't accept responsibility  
for that

We don't need to take on this liability  
for Superfund - we do it for convenience

The proposed changes are not acceptable

- Let EPA get access for them and us



BY

Peter Mock

*delivered  
2/12/88  
11 Am*

AGREEMENT

This Agreement is made this \_\_\_\_ day of \_\_\_\_\_, 1987, by the following parties:

~~American Continental Corporation~~ and CH2M HILL.  
*RANCHO ESTRELLA REAL ESTATE CORP. (REREC)*

Whereas, representatives of the United States Environmental Protection Agency ("EPA") have been informed that elevated levels of trichloroethylene ("TCE"), perchloroethylene ("PCE") and other hydrocarbons may be found in soils and groundwater at the Phoenix-Goodyear Airport Hazardous Waste Site, Goodyear, Arizona (the "Site"), and that such substances may be injurious to the health of persons residing on or near the Site if they were to contaminate a public drinking water source.

Whereas, EPA has contracted with CH2M HILL to investigate groundwater contamination in the vicinity of the Site.

Whereas, EPA and CH2M HILL seek permission to enter onto property owned by American Continental Corporation (the "Property") for the limited purpose of conducting a video inspection, geophysical logging, and depth-specific water quality sampling of an abandoned agricultural well (B-1-117AAD1) in connection with the investigation of groundwater contamination in the vicinity of the Site and for the protection of a public drinking water source; and

Whereas, American Continental Corporation is desirous of cooperating with the EPA and CH2M HILL in their investigation.

Now, therefore, the parties hereto agree as follows:

1. American Continental Corporation grants permission to CH2M HILL, EPA and, with American Continental Corporation's prior approval, to other designated representatives of CH2M HILL or EPA, to have access to the Property and to undertake such investigations, monitoring, surveying, and testing as may be necessary in connection with the video inspection.

2. CH2M HILL will restore to substantially the same condition as existed prior to activities under this Agreement any disturbance or damage which may result from those activities including disturbance and damage on the Property and on the property of adjacent landowners. Such disturbances shall include, but not be limited to, damage to pavement, damage to vegetation, damage to foundations and buildings, and damage to subsurface utilities.



3. CH2M HILL shall indemnify and hold harmless American Continental Corporation, its directors, officers, employees, agents, successors, and assigns, against and in respect of, any and all damages, claims, losses, reasonable legal, consulting, engineering, and other expenses, which may be imposed or incurred by American Continental Corporation, its directors, officers, employees, agents, successors, and assigns, by any other party or parties (including without limitation, a governmental entity), arising out of or in connection with any and all ~~negligent activities or omissions~~ by CH2M HILL and its employees on or at the Property. <sup>1</sup> and subcontractors

~~4. To the extent that CH2M HILL is indemnified and held harmless by its subcontractors or other designated representatives with respect to all claims, damages, losses, and expenses including court costs and attorneys' fees arising out of activities on or at the Property, undertaken in connection with the testing and monitoring of the well, CH2M HILL shall indemnify and hold harmless American Continental Corporation, its directors, officers, employees, agents, successors, and assigns against and in respect of, any and all damages, claims, losses, and expenses including court costs and attorneys' fees, which may be imposed or incurred by American Continental Corporation, its directors, officers, employees, agents, successors, and assigns by any other party or parties (including without limitation, a governmental entity), arising out of or in connection with any and all activities undertaken by CH2M HILL's subcontractors and other designated representatives.~~

<sup>Paragraph 1 of</sup>

4. This Agreement shall terminate on March 31, 1988 unless renewed in writing by mutual agreement of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on aforesaid date.

AMERICAN CONTINENTAL CORPORATION

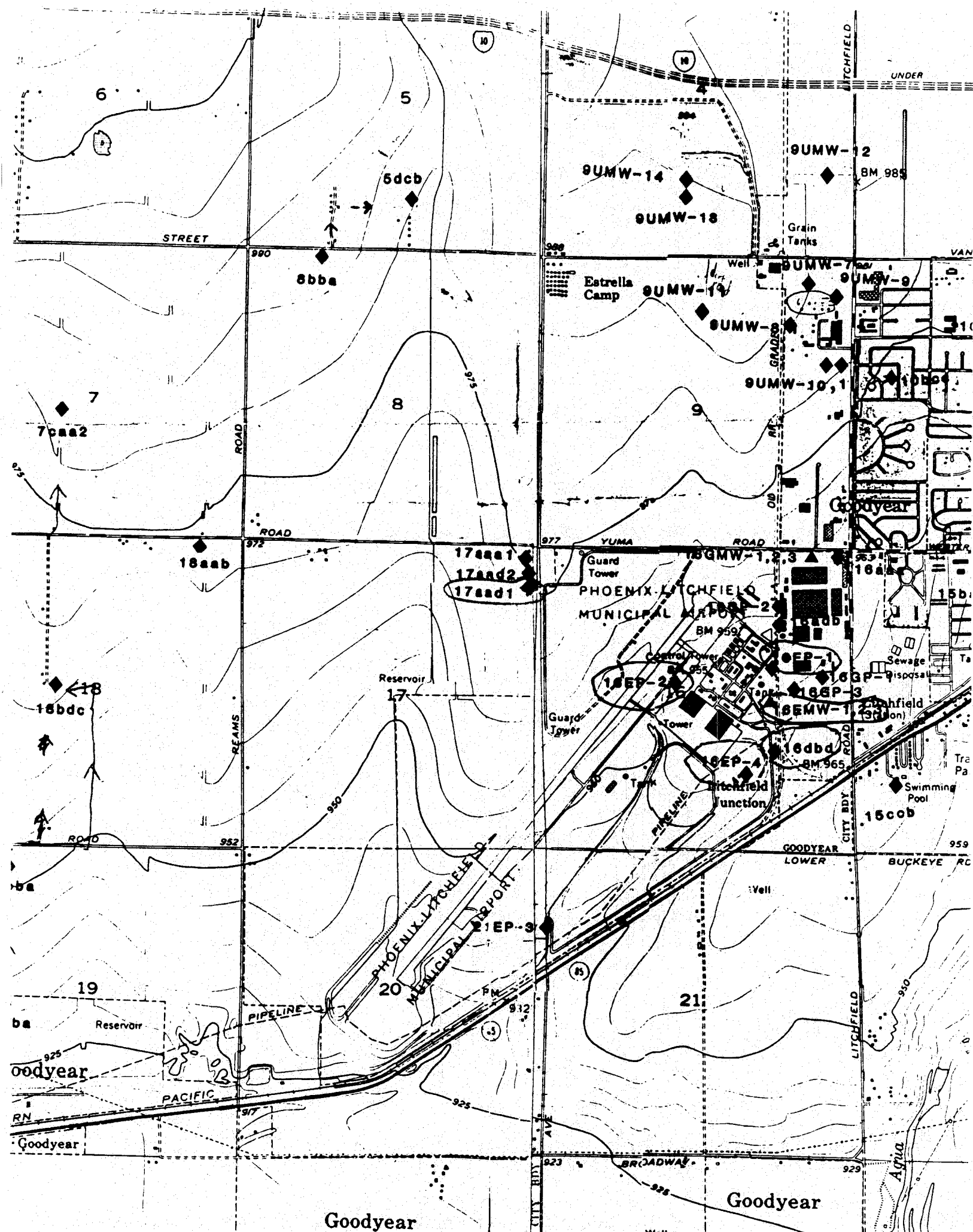
By \_\_\_\_\_

Its \_\_\_\_\_

CH2M HILL

By \_\_\_\_\_

Its \_\_\_\_\_





## TELEPHONE CONVERSATION RECORD

Date 2/11/88 Time 3:35 <sup>a.m.</sup><sub>p.m.</sub> Phone No. \_\_\_\_\_ Project No. W63600.FC

☐ To (A) \_\_\_\_\_

☒ From (B) \_\_\_\_\_

Kelly House / Amcor

Subject

Amcor #1 Access

Received CH2M HILL - Layne subcontract

- didn't help

- still need total indemnification  
for 3<sup>rd</sup> parties because well  
is open

- will drop off their version of  
agreement tomorrow

- Problem left is: Exposure due to well  
existing or being opened - they  
don't want to have to go to court  
to prove our negligence. For example:  
we pull the cover off to TV it leave  
it open and somebody falls in, etc.

- They would be working towards filling  
in the well if we didn't stop them.



BY

Peter Mock



## TELEPHONE CONVERSATION RECORD

Date 2/9/88 Time 3:27 <sup>a.m.</sup><sub>p.m.</sub> Phone No. 957-7170 Project No. W63600.FL

☒ To (A) Kelly House / AMCOR

☐ From (B) \_\_\_\_\_

Subject AMCOR #1 Access agreement

① Not in - left message

② called again 4:05 PM - Not in

③ called again 2/10 9:10 AM  
Not in - left message

④ called again 2/10 10:05 AM

He called back 10:30 AM 2/10/88

We're too low to decide - Pass to EPA & AMCOR legal/  
Indemnification agreement is as far as CH2M can go  
Jeff Erhart / AMCOR legal is contact  
957-7170

We'll Pass decision up the ladder



BY

Peter Mock

## AGREEMENT

This Agreement is made this \_\_\_\_ day of \_\_\_\_\_, 1987, by the following parties:

American Continental Corporation and CH2M HILL.

Whereas, representatives of the United States Environmental Protection Agency ("EPA") have been informed that elevated levels of trichloroethylene ("TCE"), perchloroethylene ("PCE") and other hydrocarbons may be found in soils and groundwater at the Phoenix-Goodyear Airport Hazardous Waste Site, Goodyear, Arizona (the "Site"), and that such substances may be injurious to the health of persons residing on or near the Site if they were to contaminate a public drinking water source.

Whereas, EPA has contracted with CH2M HILL to investigate groundwater contamination in the vicinity of the Site.

Whereas, EPA and CH2M HILL seek permission to enter onto property owned by American Continental Corporation (the "Property") for the limited purpose of conducting a video inspection, geophysical logging, and depth-specific water quality sampling of an abandoned agricultural well (B-1-117AAD1) in connection with the investigation of groundwater contamination in the vicinity of the Site and for the protection of a public drinking water source; and

Whereas, American Continental Corporation is desirous of cooperating with the EPA and CH2M HILL in their investigation.

Now, therefore, the parties hereto agree as follows:

1. American Continental Corporation grants permission to CH2M HILL, EPA and, with American Continental Corporation's prior approval, to other designated representatives of CH2M HILL or EPA, to have access to the Property and to undertake such investigations, monitoring, surveying, and testing as may be necessary in connection with the video inspection.

2. CH2M HILL will restore to substantially the same condition as existed prior to activities under this Agreement any disturbance or damage which may result from those activities including disturbance and damage on the Property and on the property of adjacent landowners. Such disturbances shall include, but not be limited to, damage to pavement, damage to vegetation, damage to foundations and buildings, and damage to subsurface utilities.

3. CH2M HILL shall indemnify and hold harmless American Continental Corporation, its directors, officers, employees, agents, successors, and assigns, against and in respect of, any and all damages, claims, losses, reasonable legal, consulting, engineering, and other expenses, which may be imposed or incurred by American Continental Corporation, its directors, officers, employees, agents, successors, and assigns, by any other party or parties (including without limitation, a governmental entity), arising out of or in connection with any and all negligent activities or omissions by CH2M HILL and its employees on or at the Property.

4. To the extent that CH2M HILL is indemnified and held harmless by its subcontractors or other designated representatives with respect to all claims, damages, losses, and expenses including court costs and attorneys' fees arising out of activities on or at the Property, undertaken in connection with the drilling and monitoring of the well, CH2M HILL shall indemnify and hold harmless American Continental Corporation, its directors, officers, employees, agents, successors, and assigns against and in respect of, any and all damages, claims, losses, and expenses including court costs and attorneys' fees, which may be imposed or incurred by American Continental Corporation, its directors, officers, employees, agents, successors, and assigns by any other party or parties (including without limitation, a governmental entity), arising out of or in connection with any and all activities undertaken by CH2M HILL's subcontractors and other designated representatives.

5. This Agreement shall terminate on December 31, 1987, unless renewed in writing by mutual agreement of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on aforesaid date.

AMERICAN CONTINENTAL CORPORATION

By \_\_\_\_\_

Its \_\_\_\_\_

CH2M HILL

By \_\_\_\_\_

Its \_\_\_\_\_

State of Arizona

DEPARTMENT OF WATER RESOURCES

1001 East Virginia Avenue

Tucson, Arizona 85703

# RECEIPT

Date 2/4 19 88 No 2631

Received From Peter Mock

Dollars \$ 10.00

Register Well (B-1-1) ITAADI

55-885146L

ACCOUNT			HOW PAID		
			CASH		
			CHECK		
			MONEY ORDER		

By Rachel May

PETER MOCK  
CHILIN-HILL  
9830 S 51ST  
SUITE A-133  
PHOENIX AZ 85044

STATE OF ARIZONA  
DEPARTMENT OF WATER RESOURCES  
WATER RIGHTS ADMINISTRATION  
99 EAST VIRGINIA  
PHOENIX, ARIZONA 85004

RECEIPT

KIND ENTRY	FILE REFERENCE NO.
SS	805146L
	THRU

ACCOUNT NO.				INT. ACCT.	ITEM DESCRIPTION	RATE	\$ AMOUNT
FUND SOURCE	AGENCY	CHAPTER	DIV.				
					FILE FEE FOR REGISTRATION OF EXISTING		
					LATE CHARGE		10.00
					NOV 55-805146L R(1-1)17aad		

RECEIVED  
FEB 10 1988  
CH2M HILL/PHOENIX

2/9/88/ek  
CHIEF

TOTAL \$ 10.00





## TELEPHONE CONVERSATION RECORD

Date 1/26 Time 4:40 <sup>a.m.</sup><sub>p.m.</sub> Phone No. \_\_\_\_\_ Project No. W63600.FL

☐ To (A) \_\_\_\_\_

☒ From (B) Kelly / AMCOR

Subject AMCOR #1 Testing

will follow-up

- indemnification agreement  
# expedite

- ADWR (will have their consultant  
handle registration of this well)



BY \_\_\_\_\_



## TELEPHONE CONVERSATION RECORD

Date 2/2/88 Time 9:02 <sup>a.m.</sup><sub>p.m.</sub> Phone No. 957-7170 Project No. W63600.FL

☒ To (A) Kelly House / Amcor

☐ From (B) \_\_\_\_\_

Subject Amcor #1 Access, Registration  
Kelly House / Amcor

- ① Not in - left message
- ② called again 2:55 P.M. 2/2/88
  - A) In legal review now. - will check tomorrow
  - B) I'll take care of Registration of Amcor #1
- ③ called again 2:21 AM 2/4/88  
Not in left message



BY \_\_\_\_\_

## DRILLER'S DAILY DRILL REPORT

## DRILLING /PROJECT INFORMATION

SERVICES		ACCOUNTING FOR DAILY ACTIVITY BY ITEM		FROM		TO		ITEM #		CLIENT: CH2M-HILL		Date 2-8-1988	
A DIVISION OF LAYNE-WESTERN CO., INC.		ITEM # DESCRIPTION OF ITEM HOURS		5:00 AM to 5:30 AM		5:30 AM to 6:00 AM		25		DRILLING LOCATION: PHX. GOODYEAR AIRPORT		JOB NO. 280	
NAMES		1. Mob: <input type="checkbox"/> Demob: <input type="checkbox"/> travel. 1 1/2		6:00 AM to 6:30 AM		6:30 AM to 7:00 AM		1		HOLE # 29-A		TOTALS	
DALTON		2. Daily travel to the field.		7:00 AM to 7:30 AM		7:30 AM to 8:00 AM		18		PREVIOUS FOOTAGE DRILLED 0		RECAP OF HOURLY ACTIVITY	
DRICUEZ		3. Set up equip & P.M. logs.		8:00 AM to 8:30 AM		8:30 AM to 9:00 AM		107		FOOTAGE DRILLED THIS DATE 107'		ITEM #'S	
ONLSE		4. Drilling (hammer).		9:00 AM to 9:30 AM		9:30 AM to 10:00 AM		4		SAMPLES TAKEN THIS DATE GRAB EVERY 10' NO SPOONS		HOURS	
		5. Drilling (rotary).		10:00 AM to 10:30 AM		10:30 AM to 11:00 AM		13				MOB & DEMOB/DAILY TRAVEL	
		6. Drilling (auger).		11:00 AM to 11:30 AM		11:30 AM to 12:00 N		21				TOTAL MILES 2	
		7. Drilling (coring).		12:00 N to 12:30 PM		12:30 PM to 1:00 PM		13				DRILL/SAMPLE 4, 5, 6, 7 &/or 8	
		8. Sampling (S.SPN., Shelby, etc.)		1:00 PM to 1:30 PM		1:30 PM to 2:00 PM		15				ABANDONMENT	
		9. Pull out pipe.		2:00 PM to 2:30 PM		2:30 PM to 3:00 PM		20				WELL CONSTRUCTION	
		10. Abandon hole.		3:00 PM to 3:30 PM		3:30 PM to 4:00 PM		15				SURFACE COMPLETION	
ON		11. Water testing.		4:00 PM to 4:30 PM		4:30 PM to 5:00 PM		15				DEVELOPMENT	
UNIT NO.		12. Clean out hole.		5:00 PM to 5:30 PM		5:30 PM to 6:00 PM		20				STANDBY - WITH/WITHOUT CREW	
407		13. Well construction.		6:00 PM to 6:30 PM		6:30 PM to 7:00 PM		15				OTHER MISC. HOURS	
201		14. Surface completion.		7:00 PM to 7:30 PM		7:30 PM to 8:00 PM		15				3-9-11-12-13-16-17-18-19	
112		15. Development - AIR LIFT		8:00 PM to 8:30 PM		8:30 PM to 9:00 PM		15				20-23-24-25-26-27-28-29	
		16. Decontamination.		9:00 PM to 9:30 PM		9:30 PM to 10:00 PM		15				TOTAL HOURS	
		17. Site clean-up.		10:00 PM to 10:30 PM		10:30 PM to 11:00 PM		15				11 1/2	
706		18. Move between holes. Rig up		11:00 PM to 11:30 PM		11:30 PM to 12:00 PM		15				NO. OF CREW WITH CHARGEABLE PER DIEM	
		19. Water hauling.		12:00 PM to 12:30 AM		12:30 AM to 1:00 AM		15				NO. OF CREW UNDER PERSONAL PROTECTION	
		20. Work on stuck pipe.		1:00 AM to 1:30 AM		1:30 AM to 2:00 AM		15				DRILLING SUPPLIES • CONSTRUCTION MATERIALS SAFETY EQUIPMENT • MISCELLANEOUS	
		21. Standby with crew.		2:00 AM to 2:30 AM		2:30 AM to 3:00 AM		15				QTY. DESCRIPTION QTY. DESCRIPTION	
		22. Standby without crew.		3:00 AM to 3:30 AM		3:30 AM to 4:00 AM		15				18 BAGS #3	
		23. Scheduled maint. & service.		4:00 AM to 4:30 AM		4:30 AM to 5:00 AM		15				1-5' SCH 40 PVC SILT TRAP	
		24. Unscheduled repairs.		5:00 AM to 5:30 AM		5:30 AM to 6:00 AM		15				4-10X4" SCH 40 PVC SCREEN	
		25. Project prep. (load-up/unload).		6:00 AM to 6:30 AM		6:30 AM to 7:00 AM		15				6-10X4" SCH 40 PVC BLANK	
		26. Yard time (sched./unsched).		7:00 AM to 7:30 AM		7:30 AM to 8:00 AM		15				2 PAILS BENTONITE	
		27.		8:00 AM to 8:30 AM		8:30 AM to 9:00 AM		15				1-4" SCH 40 BOTTOM CAP	
		28.		9:00 AM to 9:30 AM		9:30 AM to 10:00 PM		15				#	
		29.		10:00 PM to 10:30 PM		10:30 PM to 11:00 PM		15					
		TOTAL HOURS		11:00 PM to 11:30 PM		11:30 PM to 12:00 PM		15					
				12:00 PM to 12:30 AM		12:30 AM to 1:00 AM		15					
				1:00 AM to 1:30 AM		1:30 AM to 2:00 AM		15					
				2:00 AM to 2:30 AM		2:30 AM to 3:00 AM		15					
				3:00 AM to 3:30 AM		3:30 AM to 4:00 AM		15					
				4:00 AM to 4:30 AM		4:30 AM to 5:00 AM		15					
				5:00 AM to 5:30 AM		5:30 AM to 6:00 AM		15					
				6:00 AM to 6:30 AM		6:30 AM to 7:00 AM		15					
				7:00 AM to 7:30 AM		7:30 AM to 8:00 AM		15					
				8:00 AM to 8:30 AM		8:30 AM to 9:00 AM		15					
				9:00 AM to									

AYNE ENVIRONMENTAL SERVICES

A DIVISION OF LAYNE-WESTERN CO., INC.

NAMES

DALTON

RIGUEZ

NJE.

TOTAL HOURS

ON

UNIT NO.

402

204

112

706

DRILLER'S DAILY DRILL REPORT

ACCOUNTING FOR DAILY ACTIVITY BY ITEM

ITEM #

DESCRIPTION OF ITEM

HOURS

1. Mob: ☐ Demob: ☐ travel. 1 1/2

2. Daily travel to the field.

3. Set up equip & P.M. logs.

4. Drilling (hammer).

5. Drilling (rotary).

6. Drilling (auger).

7. Drilling (coring).

8. Sampling (S.SPN., Shelby, etc.)

9. Pull out pipe.

10. Abandon hole.

11. Water testing.

12. Clean out hole.

13. Well construction. 4

14. Surface completion.

15. Development.

16. Decontamination.

17. Site clean-up.

18. Move between holes.

19. Water hauling.

20. Work on stuck pipe.

21. Standby with crew.

22. Standby without crew.

23. Scheduled maint. & service.

24. Unscheduled repairs.

25. Project prep. (load-up/unload).

26. Yard time (sched./unsched). 1 1/2

27.

28.

29.

TOTAL HOURS 10 1/2

FROM

TO

ITEM #

5:00 AM to 5:30 AM

5:30 AM to 6:00 AM

6:00 AM to 6:30 AM

6:30 AM to 7:00 AM

7:00 AM to 7:30 AM

7:30 AM to 8:00 AM

8:00 AM to 8:30 AM

8:30 AM to 9:00 AM

9:00 AM to 9:30 AM

9:30 AM to 10:00 AM

10:00 AM to 10:30 AM

10:30 AM to 11:00 AM

11:00 AM to 11:30 AM

11:30 AM to 12:00 N

12:00 N to 12:30 PM

12:30 PM to 1:00 PM

1:00 PM to 1:30 PM

1:30 PM to 2:00 PM

2:00 PM to 2:30 PM

2:30 PM to 3:00 PM

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1:00 AM to 1:30 AM

1:30 AM to 2:00 AM

2:00 AM to 2:30 AM

2:30 AM to 3:00 AM

3:00 AM to 3:30 AM

3:30 AM to 4:00 AM

4:00 AM to 4:30 AM

4:30 AM to 5:00 AM

DRILLING /PROJECT INFORMATION

CLIENT: CH2M HILL

DRILLING LOCATION: PHX- GOODYEAR AIRPORT

Date 2-9-1988

JOB NO. 280

HOLE #

29-A

TOTALS

RECAP OF HOURLY ACTIVITY

ITEM #'S

HOURS

PREVIOUS FOOTAGE DRILLED

FOOTAGE DRILLED THIS DATE

SAMPLES TAKEN THIS DATE

SURFACE CASING

FROM

TO

PROTECTIVE CASING

FROM

TO

CEMENT SEAL

FROM

TO

BENT. SEAL

FROM

TO

SAND PACK

FROM

TO

BLANK CASING

FROM

TO

SCREEN

FROM

TO

WATER LEVEL

DESCRIPTION

FROM

TO

FROM

TO

FROM

TO

FROM

TO

MOB & DEMOB/DAILY TRAVEL 1

TOTAL MILES 2

DRILL/SAMPLE 4, 5, 6, 7 &/or 8

ABANDONMENT 10

WELL CONSTRUCTION 13

SURFACE COMPLETION 14

DEVELOPMENT 15

STANDBY - WITH/WITHOUT CREW 21 22

OTHER MISC. HOURS 3-9-11-12-13-16-17-18-19 20-23-24-25-26-27-28-29

TOTAL HOURS 7

NO. OF CREW WITH CHARGEABLE PER DIEM

NO. OF CREW UNDER PERSONAL PROTECTION

DRILLING SUPPLIES • CONSTRUCTION MATERIALS SAFETY EQUIPMENT • MISCELLANEOUS

QTY.

DESCRIPTION

QTY.

DESCRIPTION

1-6 3/8 X 27' STEEL SURFACE CASING

DRILLER/SUPER REMARKS & APPROVAL: Berni m Dalton

CLIENT'S REMARKS:

ALL APPLICABLE HOURS, FOOTAGE, SUPPLIES, ETC. CONSUMED ARE TO BE CONSIDERED CHARGEABLE

IN ACCORDANCE WITH CONTRACT DOCUMENTS AND CHANGE ORDERS

CLIENTS APPROVAL: Jeffery C. Morris

6:00 TO 7:30 PICK UP TRIM AT YARD

JOB SITE 7:30 TO 11:30 PULL 9" TRIM DOWN

HOLE 29-A 11:30 TO 1:00 MOB TO YARD

0 COPY

FORM NO. LES-1

2-8-88

EMW-29A

PHOENIX GOODYEAR AIRPORT

WEATHER: Sunny, warm expect mid 70's today

PERSONNEL: P. MOCK, J. MORRIS (CH2MHILL), <sup>Bernie</sup> Driller + 2 helpers + grout man + geol. <sup>Leo</sup> (LAYNE)

EQUIPMENT: Triple wall hammer rig, water and pipe truck, grout plant

ACTIVITIES: Arrive at site 0659. Leo (LAYNE) and guy with rolloff box (Disposal Control Service) here.

Drilling crew and rigs arrive ~ 0730. Peter arrives.

0839 setting up rigs and equipment. Plastic laid on ground beneath hammer and used to line rolloff box.

0914 begin hammering

0922 down 10' sample bagged 0-10' light brown silt, clay

0936 begin hammering at 10'

0941 hammer advancing more slowly (15-16' to 20')

0952 down to 20'

samples bagged 10-11 ft same as 0-10

11-15 ft

15-18 ft

18-19 ft

2-8-88

(2)

1002 begin hammering at 20'. hammer advancing more quickly - easy 24-26, 28-30.

1015 samples bagged 19-21

21-24 large clay chunks some

24-27

28- more sand

down to 31 ft. adding

1019 begin hammering - advancing outer wall to 25'

1033 pulled outer wall ( $10\frac{3}{4}$ " ) up 5 ft. and readvancing to 25' to eliminate build up between  $10\frac{3}{4}$ " and 9" casings and to clean hole.

1046 begin hammering - advancing now with dual wall setup easy hammering 32-38, 38-40

samples bagged 29-33, 33-36, 36-39

36-39 some sands, moisture

1055 begin hammering at 40' stopped at 41-42 to unclog air. slightly slower drilling from 40 to 45'

1109 down to 50'



2-8-88

(3)

1115 line clogged

1129 down to 60' easy drilling 50-60 soil moist

1132 begin hammering slow 62-63'  
started injecting water at 65'

1146 Down 69-70

1148 sounding hole - sounder not working apparently

1154 begin hammering at 70'

at about 72-73 large cobbles, then no returns  
down to 76. Raising up to 72' easing down  
through 76 again

1202 down 80' samples bagged 59-72, 72-80

1218 down 90' " " 80-89

1221 begin hammering at 90'

1225 down to 100' easy drilling

1228 begin hammering at 100'

1235 down to 110'

1240 Bernie reports hole open to 107

1241 Measuring water level: = 765 ft

2-8-88

(4)

1249 Hole sounded again - 62.5 ft to water

1253 Inserting PVC casing 5' of blank, 40' of screen

1309 50' of blank above screen installed

Need one more section of blank. Making arrangements to get

1354 last section of blank PVC installed

1402 adding sand Monterey #3

bags: ~~III~~ ~~III~~ ~~III~~ IIIpulling <sup>6 and 9"</sup> ~~water~~ walls as sand fills hole

1514 sand to 50'

1519 setting up to airlift

1530 started surging

1628 water clearing small amount of sands

1642 trace sand in development water, water clearer

1654 water clear, fines only

1700 water clear - 5 gallon bucket 1/2 full can see bottom  
trace small sands

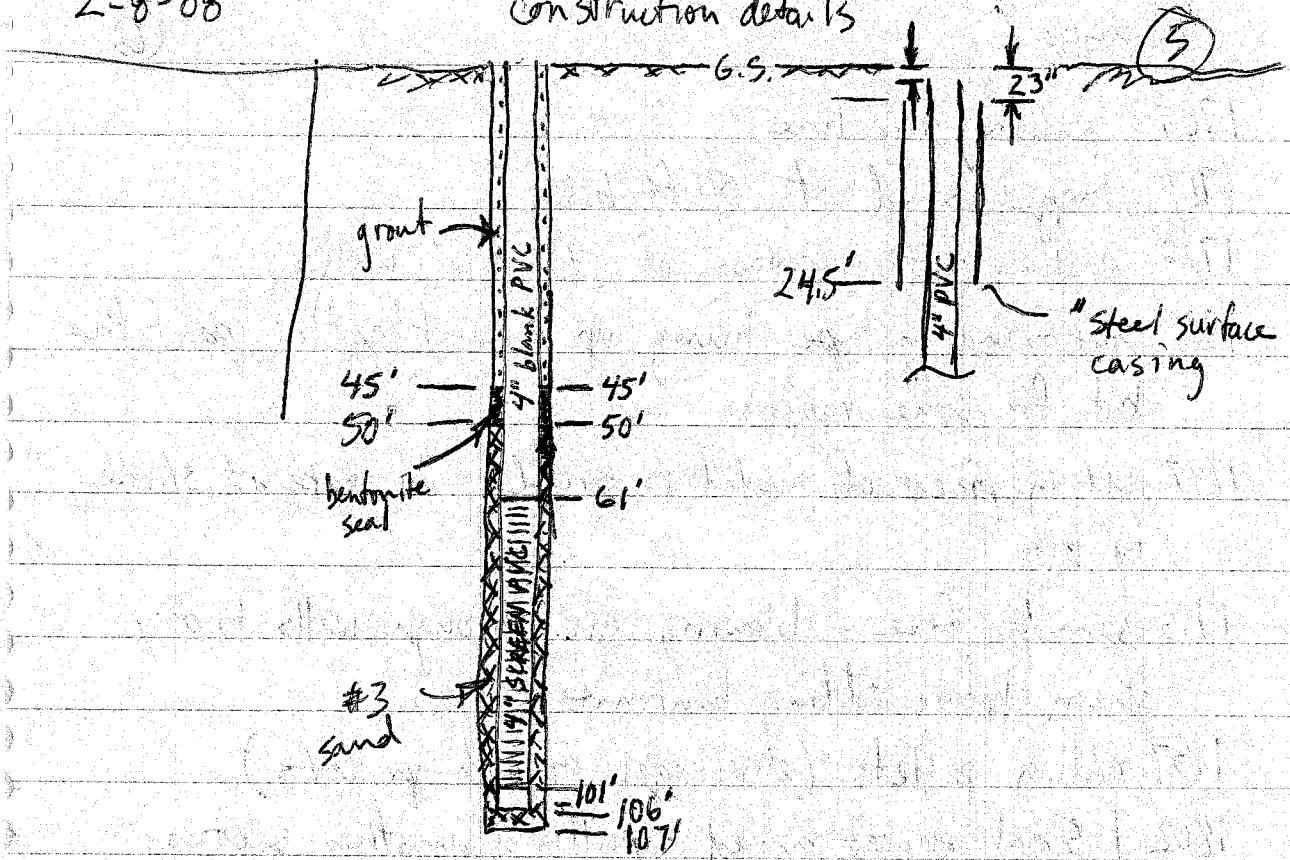
1702 stop airlifting total time = 92 mins

cont'd pg. 5



2-8-88

# construction details



2-8-88

⑥

1709 pulling air line

1717 tagged sand at 50 ft b.l.s.

1722 pulling another section of 9" and 6" walls

1730 Steel sounding tape hung up - can't get it past the bit for some reason

1747 adding piece of metal to sounder to make it slide by bit

1755 sounder free - blowing air through walls to dry them before adding bentonite

1757 adding pellets (envirogel 1/4 inch pellets)

1802 1 5 gal bucket added - pulling another section of walls

1806 adding second bucket of pellets

1812 adding 5 gals of water. Can't get sounder past bit. Use hammer to pound ~~on~~ lightly on bit

1830 adding 15 gals H<sub>2</sub>O

1837 " 20 " " ; circulating air

1847 Finished for today Jeff Merwin

2-9-88

EMW-29A

PGA

①

Arrive at EMW-29A at 0657. Leo here.

Clear, cool presently ( $\sim 50^{\circ}\text{F}$ ) Expect  $75^{\circ}\text{F}$  today

0718 Bernie (driller) and helpers arrive

0726 Inserting tremie pipe for grout - having trouble getting pipe in between 4" PVC and inner 6" wall & pit.

0736 Will pull the 6" and 9" walls to accommodate tremie pipe. Remaining casing = 27' of the triple wall (10 $\frac{3}{4}$ " )

0823 all of double wall out of hole.

hole sounded: top of seal 45'

1 gallon of water = 8.6 lbs

0834 ran dummy pump down casing (steam cleaned) to bottom of well. Measured length to bottom = 105'

⇒ no obstructions

0842 Mixing cement

batch 1 - 15.0 lb / 1 gal

0924 cement to 39' 15.2 lb/gal

0934 " " 31' will set outer casing now then

2-9-88

(2)

will finish grouting. Mixture = 15.0 ~~gr~~ lb/gal

{ Each batch has 1 94 lb bag of cement, 6.3 to 6.5 gals  
of water & 64 oz of bentonite.

0954 setting outer casing

1011 casing set - having trouble pulling 10 3/4" wall out

1023 resume grouting

1030 mixture 15.0 lb/gal

1033 pulling 5 ft of 10 3/4" - adding more grout

1056 grouting complete; lowering derrick

1108 Digging hole for access box

1200 Hole dug. Trying to cut surface casing

1212 Placing access box in hole. ~~Conductor~~ <sup>Surface</sup> casing not  
cut yet. Have been trying to cut with a tube cutter  
but not enough room in hole. May need a torch.

1216 hole not quite big enough for box - digging some  
more.

1232 box inserted; backfilling

1302 Leo going to store to get hacksaw and/or different  
means of cutting surface casing

2-9-88

(3)

1330 Leo returns with hacksaw blades and short threaded length of steel for use w/ the <sup>pipe</sup> tubing cutter

1352 Ground rod inserted between surface casing and borehole wall in grout.

1436 still working on cutting surface casing

1515 Unable to get surface casing cut - not enough space. Layne will come out tomorrow morning with torch and cut casing and top of annulus (between surface casing and PVC) with grout. Down 10 feet presently.

1520 Done for the day

Jeff Mauer



January 27, 1988

W63600.FL

Gary Corbel  
Welenco, Inc.  
625 South Smith, Suite 17  
Tempe, Arizona 85281

Dear Mr. Corbel:

This letter authorizes you to proceed with the geophysical logging at Roosevelt Irrigation District Well RID 5.6W,3.5N on February 1, 1988 at the Phoenix-Goodyear site under Sub-contract No. 144.00.

Sincerely,

A handwritten signature in cursive script, reading 'Peter Mock', is written over the typed name.

Peter Mock  
Project Hydrogeologist

ts:PHC1/127



January 27, 1988

W63600.FL

Mr. Robert M. Huskisson  
Layne-Western Co., Inc.  
9002 South Hardy Drive  
Tempe, Arizona 85284

Dear Mr. Huskisson:

This letter authorizes you to proceed with well pumping services at the Phoenix-Goodyear site under Subcontract No. 146.00.

Sincerely,

A handwritten signature in cursive script, reading 'Peter Mock', is written over the typed name.

Peter Mock  
Project Hydrogeologist

ts:PHC1/127

CITY OF



INCORPORATED 1946

RECEIVED  
JAN 25 1988  
CH2M HILL/PHOENIX

January 21, 1988

CH2M Hill  
9830 south 51st Street, Suite A-133  
Phoenix, AZ 85044

Attention: Peter Mock

RE: Access to Utility Easement for Monitoring Well  
Installation at Well #5

Dear Mr. Mock,

This is to grant you permission to install a monitoring well within the fenced facility (Well #5). Said monitoring well will be 100 feet deep and be completed with a flush mounted utility box.

I understand that activities include clearing the proposed site on January 21-22 with drilling to begin on February 5, 1988. Please coordinate drilling site with Glenn Bush, City Engineer (264-6424) and immediate and long term access to Well #5 site with Frank LaVoie, Public Works Superintendent (932-3910).

Sincerely,

CITY OF GOODYEAR

A handwritten signature in cursive script that reads "Stephen Cleveland".

Stephen Cleveland  
Assistant City Manager.

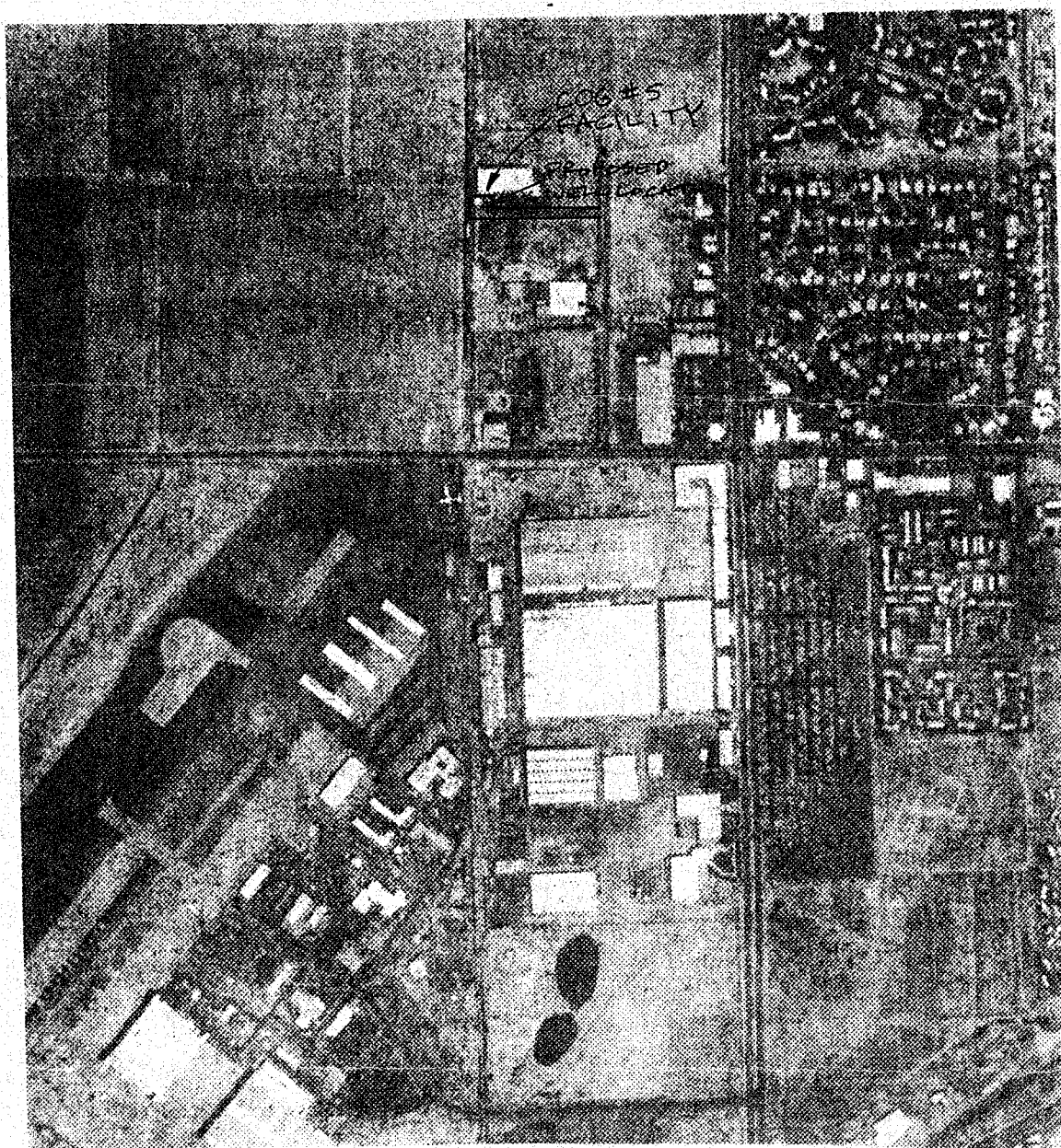
Enclosure: Map Well #5

cc. Glenn Bush  
Frank LaVoie  
Jeff Rosenblum, E.P.A.



119 North Litchfield Road, Goodyear, Arizona 85338  
(602) 932-3910 • 1-800-USA-1PHX







TELEPHONE CONVERSATION RECORD

Date 1/21/80 Time 9 <sup>a.m.</sup><sub>p.m.</sub> Phone No. \_\_\_\_\_ Project No. WL3600.FQ

☐ To (A) \_\_\_\_\_

☒ From (B) City of Goodyear - Secretary

Subject EMW-29A Access

Letter granting permission is in the mail



BY \_\_\_\_\_

REV 7/84 FORM 4



Engineers  
Planners  
Economists  
Scientists

January 15, 1988

W63600.FQ

Mr. Steve Cleveland  
Assistant City Manager  
City of Goodyear  
119 North Litchfield Road  
Goodyear, Arizona 85338

Subject: Access to Utility Easement  
for Monitoring Well Installation

Dear Mr. Cleveland:

As you are aware, CH2M HILL, Inc. is completing a remedial investigation of the Phoenix-Goodyear Airport area under contract to the U.S. EPA. One of our final tasks is to put a bound on the northern extent of ground water contamination near Yuma Road. To that end, we ask the City's permission to install a monitoring well in the fenced facility which encloses City of Goodyear Well #5 about 1200 feet north of Yuma Road. The well will be 100 feet deep and be completed in a flush-mounted utility box.

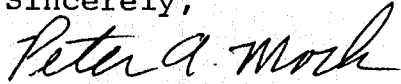
We have discussed this well placement with your City Engineer, Glenn Bush, and hydrogeologic consultant, Bill Allen. They have indicated that the proposed well placement would be acceptable to the City from a technical and logistical standpoint.

The proposed location of the well is shown on the enclosed figure. We will work with your staff in safely locating utilities and completing the well in a timely manner. The schedule for drilling calls for us to clear utilities on January 21-22, 1988 and begin drilling at 7:00 AM on January 25, 1988.

Mr. Steve Cleveland  
Assistant City Manager  
W63600.FQ  
January 15, 1988  
Page 2

At your earliest convenience, please indicate your permission for the well installation. If we can answer any questions, please call me at (602) 893-6155. Thanks again for all the City's help.

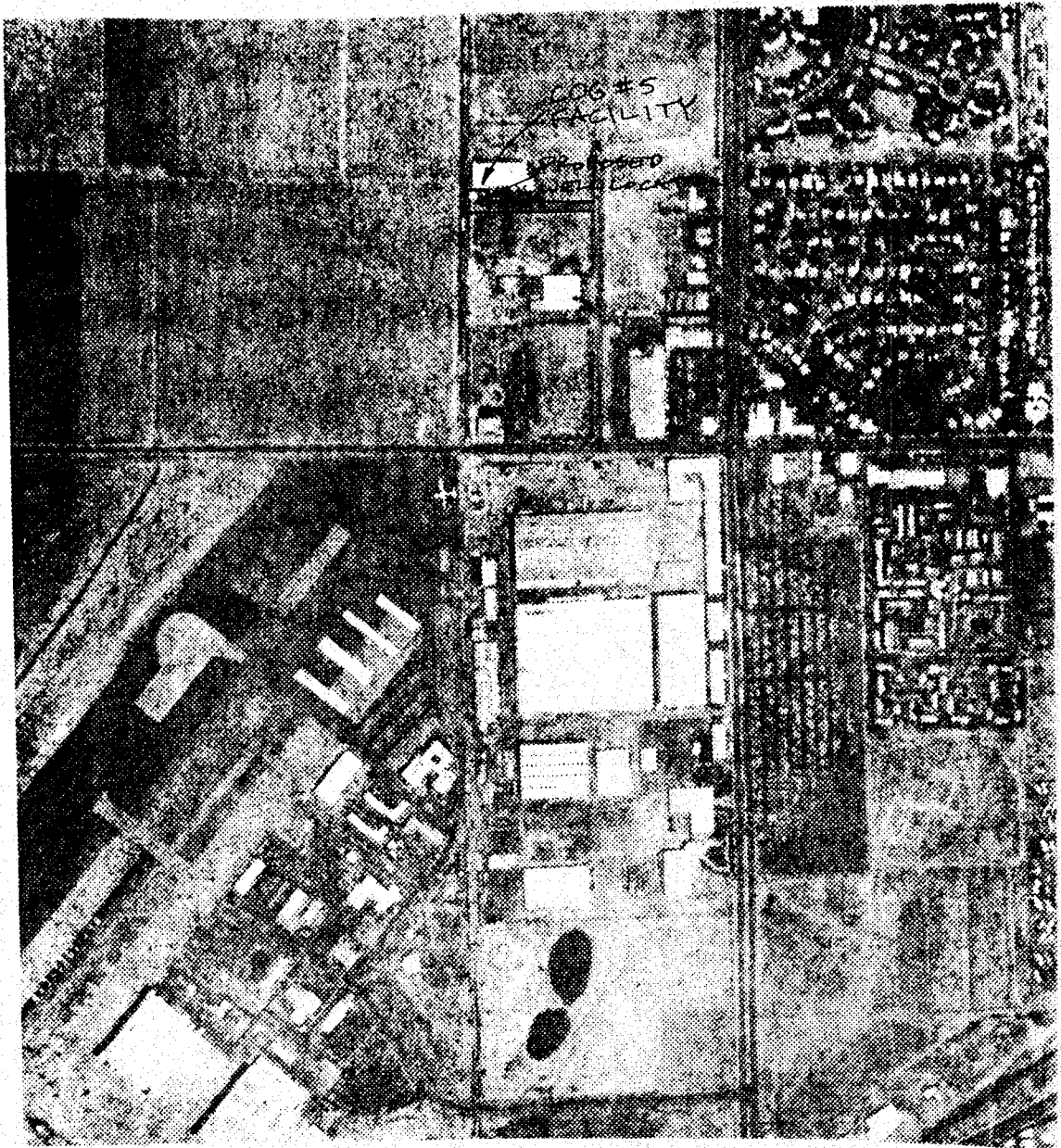
Sincerely,



Peter A. Mock  
Project Hydrogeologist

cc: Jeff Rosenbloom/EPA  
John Lucero/RDD

enclosure  
ts:PHC2/218





## TELEPHONE CONVERSATION RECORD

Date 1/11/08 Time 4:30 <sup>a.m.</sup><sub>p.m.</sub> Phone No.                      Project No. W63600.FQX To (A) Peter Mock / PTHX From (B) Dan Hass, Jerry Ellsworth / Sun CoSubject Monitoring well access - EMW-29A

Want to sell property north of CORAL  
Don't want monitoring well on property

Please move well to utility easement on  
Camino Oro

I said I'll talk w/ city of Goodyear

★ Warren Downs called 1/12/08 8:35 AM  
to say their counsel asked if we could  
move the well to the city right-of-way  
because they are now in tense negotiations  
to sell the property

I said we'll work w/ COG

BY                     

REV 7/84 FORM 4



Engineers  
Planners  
Economists  
Scientists

January 6, 1988

W63600.FQ

Mr. Warren Downs  
SunCor Development Co.  
P.O. Box 1800  
Litchfield Park, Arizona 85340

Dear Mr. Downs:

Subject: Monitoring Well Access Form

As requested, enclosed is a copy of the permission form for access to your property on Camino Oro just north of Yuma Road. We plan to start drilling on January 18, 1988 and complete operations by January 22, 1988. At your earliest convenience, please complete the form and return it to me. If you have any questions, please call. Thank you again for your assistance.

Sincerely,

A handwritten signature in cursive script that reads "Peter A. Mock".

Peter A. Mock  
Project Hydrogeologist

enclosure

cc: Jeff Rosenbloom/EPA Region IX  
John Lucero/RDD  
Steve Cleveland/City of Goodyear

ts:PHC1/115



Engineers  
Planners  
Economists  
Scientists

November 19, 1987

W63600.FQ

Mr. Warren Downs  
SunCor Development Co.  
P.O. Box 1800  
Litchfield Park, Arizona 85340

Dear Mr. Downs:

Subject: Monitoring Well Agreement

As requested, I have enclosed the well construction diagrams used by our drilling contractor for wells at the Phoenix-Goodyear Airport. A well installed under this drilling program can be found in the First Interstate Bank parking lot on Western Avenue east of Litchfield Road. Please call me if you require any additional information or would like to meet to discuss this matter further.

Thank you for your helpful cooperation both at this site and with Unidynamics. We hope to be completing the project with the installation of this last proposed well.

Sincerely,

A handwritten signature in cursive script, reading "Peter A. Mock".

Peter A. Mock  
Project Hydrogeologist

enclosure

cc: Jeff Rosenbloom/EPA Region IX  
John Lucero/RDD

ts:PHC2/207



TELEPHONE CONVERSATION RECORD



Date 11/19/87 Time 1:28 <sup>a.m.</sup> ~~p.m.~~ Phone No. 935-2700 Project No. W63600.FQ  
☒ To Warren Downs / Sun Cor Development  
☐ From  
☐ To Peter Mock / PTH  
☒ From  
 Subject EMW-29A access

*Needed clarification on purpose & relationship to UPI site & D&M drilling*

*Looks OK - Needs well construction Diagram to decide on wellhead treatment*

*Send to : P.O. Box 1800  
 Litchfield Park, AZ 85340  
 done*

*I called 12/3/87 2:50  
 Not in - left message*

*I called Again 12/14/87 9:27  
 Not in - left message*

*I called again 12/29/87  
 Not in - left message*

*I called again 1/6/87 0810 (good time to call)  
 Received construction Diagram - looks fine  
 Lost Contract Form - please send another*

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. <input type="checkbox"/> Show to whom delivered, date, and addressee's address.		2. <input type="checkbox"/> Restricted Delivery.	
3. Article Addressed to: Sahhar Properties 200 Camino Oro Goodyear, Arizona 85338		4. Article Number P-474,080-956	
		Type of Service: <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> COD	
5. Signature — Addressee X		Always obtain signature of addressee or agent and DATE DELIVERED.	
6. Signature — Agent X <i>David L. McFarlane</i>		8. Addressee's Address (ONLY if requested and fee paid)	
7. Date of Delivery JAN 11 1986			

PS Form 3811, Feb. 1985 7 1110 DOMESTIC RETURN RECEIPT

P-474 080 956

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED

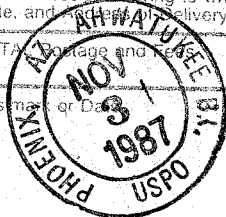
NOT FOR INTERNATIONAL MAIL

(See Reverse)

U.S.G.P.O. 153-506

PS Form 3800, June 1985

Sent to	
Sahhar Properties	
Street and No.	
P.O., State and ZIP Code	
Postage	\$ 39
Certified Fee	70
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	75
Return Receipt showing to whom, Date, and Address of delivery	
TOTAL Postage and Fees	\$ 184
Postmark or Date	





Engineers  
Planners  
Economists  
Scientists

November 3, 1987

W63600.FQ

Sahhar Properties  
200 Camino Oro  
Goodyear, Arizona 85338

Dear Sirs:

Subject: Permission to Access Property for Investigation  
Purposes

CH2M HILL, Inc. under contract to the U.S. Environmental Protection Agency (EPA) is conducting an investigation in the vicinity of the Phoenix-Goodyear Airport in Goodyear, Arizona. The investigation is being conducted under the Superfund Program. It is intended to determine the extent and degree of soil and ground water contamination, and to determine the feasibility of various clean-up options.

We are requesting access to the following parcels of land:

Parcels 500-04-015V T1N, R1W SE 1/4,  
SE 1/4, SE 1/4, Sec. 9

Several types of tasks will be performed in conjunction with the investigation. The following sampling techniques will be used.

- o Groundwater monitoring well drilling - A field team will work with a drilling crew and drilling rig to install a monitoring well 100 to 120 feet in depth during November, 1987. The well will be covered with a flush-mounted locked cover. The EPA will be responsible for removal or plugging of wells at the end of the study.
- o Groundwater monitoring well sampling - A field person or team will remove water from the well and collect a small sample (about one gallon) for laboratory analysis on a quarterly schedule from January through December, 1988.

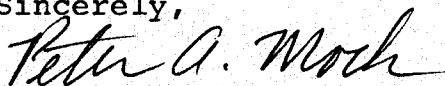
W63600.FQ  
November 8, 1987  
Page 2

- o Surveying - A survey crew will survey the monitoring well site during December, 1987.

We have enclosed a self-addressed envelope with the permission form. Please review, sign and mail this form at your earliest convenience. Because of the time schedule for this program, we ask that you call me at (602) 893-6155 if you will be unable to return the completed form by November 15, 1987 or have any questions.

We greatly appreciate your cooperation. Thanks for the time and important contribution you can make to the Project.

Sincerely,



Peter A. Mock  
Hydrogeologist

ts/PHC1/100

PERMISSION FOR ACCESS TO PROPERTIES CONCERNING  
THE PHOENIX-GOODYEAR AIRPORT HAZARDOUS WASTE SITE  
GOODYEAR, ARIZONA

I, the undersigned, am the owner, his representative, or otherwise control the real property at the location described below. Representatives of the United States Environmental Protection Agency (USEPA) have informed me that elevated levels of trichloroethene (TCE), perchloroethene (PCE) and other hydrocarbons may be found in soils and ground water at this location, and that they may be injurious to the health of persons residing on or nearby this property. I also understand that further efforts are needed to characterize the source of this contamination and define its extent in this vicinity.

I hereby give permission to EPA and EPA's contractors and subcontractors', as well as their employees, agents and other designated representatives (who may include state and local agencies and their officials), to have access to my property and to undertake such investigations, monitoring, surveying, and testing that may be necessary. Activities will be limited to surveying and groundwater monitoring well drilling during the months of November, 1987 through January, 1988 and sampling quarterly through December, 1988.

I understand that the work described above may involve, among other things, some disturbance of soil and vegetation on my property, and drilling small holes into the ground. I also understand that any disturbed vegetation will be restored to substantially the same condition as existed prior to such disturbance; that wells will be capped with locked covers; and that my property will be returned to substantially the same condition upon completion of the sampling.

Parcel Number: \_\_\_\_\_

Signature of Owner/Occupant (all joint owners must sign):

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:  
Litchfield PARK Properties  
P. O. Box 747  
Litchfield Park, Arizona  
85340

4. Article Number:  
P-474 080 955

Type of Service:  
☐ Registered  
☒ Certified  
☐ Express Mail  
☐ Insured  
☐ COD

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee  
X *[Signature]*

6. Signature - Agent  
X

7. Date of Delivery  
11-9-87

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Feb. 1986 DOMESTIC RETURN RECEIPT

P-474 080 955

**RECEIPT FOR CERTIFIED MAIL**  
 NO INSURANCE COVERAGE PROVIDED  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

USGPO 153-506

Sent to: Litchfield Properties

Street and No.

P.O., State and ZIP Code

Postage	\$ 39
Certified Fee	70
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	75
Return Receipt showing to whom, Date, and Address of Addressee	
TOTAL Postage and Fees	\$ 184
Postmaster's Date	

PS Form 3800, June 1985

NOV 3 1987  
PHOENIX, AZ  
U.S. POSTAL SERVICE



Engineers  
Planners  
Economists  
Scientists

November 3, 1987

W63600.FQ

Litchfield Park Properties  
P. O. Box 747  
Litchfield Park, Arizona 85340

Dear Sirs:

Subject: Permission to Access Property for Investigation  
Purposes

CH2M HILL, Inc. under contract to the U.S. Environmental Protection Agency (EPA) is conducting an investigation in the vicinity of the Phoenix-Goodyear Airport in Goodyear, Arizona. The investigation is being conducted under the Superfund Program. It is intended to determine the extent and degree of soil and ground water contamination, and to determine the feasibility of various clean-up options.

We are requesting access to the following parcels of land:

Parcels 500-04-019C T1N, R1W SE 1/4,  
SE 1/4, SE 1/4, Sec. 9

Several types of tasks will be performed in conjunction with the investigation. The following sampling techniques will be used.

- o Groundwater monitoring well drilling - A field team will work with a drilling crew and drilling rig to install a monitoring well 100 to 120 feet in depth during November, 1987. The well will be covered with a flush-mounted locked cover. The EPA will be responsible for removal or plugging of wells at the end of the study.
- o Groundwater monitoring well sampling - A field person or team will remove water from the well and collect a small sample (about one gallon) for laboratory analysis on a quarterly basis from January through December, 1988.

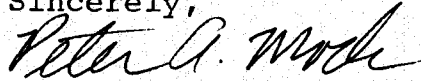


- o Surveying - A survey crew will survey the monitoring well site during December, 1987.

We have enclosed a self-addressed envelope with the permission form. Please review, sign and mail this form at your earliest convenience. Because of the time schedule for this program, we ask that you call me at (602) 893-6155 if you will be unable to return the completed form by November 15, 1987 or have any questions.

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Sincerely,



Peter A. Mock  
Hydrogeologist

ts/PHC1/100

PERMISSION FOR ACCESS TO PROPERTIES CONCERNING  
THE PHOENIX-GOODYEAR AIRPORT HAZARDOUS WASTE SITE  
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Parcel Number: \_\_\_\_\_

Signature of Owner/Occupant (all joint owners must sign):

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

(18G)  
98.073 Ac.

(B-1-1) 7

Book 500  
Map 4  
Sheet 4

(18C)  
4.913 Ac.  
550

(18B)  
1.924 Ac.

(18C)  
2.850 Ac.

(18F)  
124.760 Ac.

(20)  
10473/115  
.408 Ac.

(16A)

1157.427

(17A)  
23.645

1158.522

(16A)

273

1159.16

622.10

(15L)  
229.64  
2703/35

(14A)  
229.64  
2406/33

(19E)  
6002/152  
26/48 Ac.

(+)  
3

532.30  
5.024  
80 Ac  
(19F)  
10744/450  
390

(19D)  
512.02

(13)  
230

(17M)  
242.62

(15F)  
242.62

(15V)  
710 2400/134

(21)  
2445  
Ac

(152)  
543.62  
11623/2

(19C)  
2107 Ac.

(15B)  
6412 Ac.

WESTWARD BLVD.)

ROAD SEC

1998 ±

1319.13'

81.33

25'

45'

1242.33

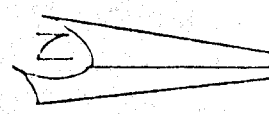
LITCHFIELD

RECORDED  
INDEXED

(139<sup>th</sup>

AVE)

1" = 500'  
SCALE



## MARICOPA COUNTY, ARIZONA

01-16-87	BOOKET-PAGE	LOT-BLACK-TRACT	BOOKET-PAGE	LAND	IMPROVEMENTS	PERM. PROP.	EXEMPTIONS	F-10	PAGE 9179
OWNER'S NAME CONTRACT TO SELL ADDRESS (MAILING) (IF DIFFERENT) LEGAL DESCRIPTION	DATE	SECT-TYPED-TRACT AREA COR. STATES-PR-LP SPECIAL CASE	DATE	CASH VALUE ASD VALUE CLASS PERCENT % ACREAGE	CASH VALUE ASD VALUE CLASS PERCENT %	CASH VALUE ASD VALUE	EXEMPTIONS CLASS 1 PERCENT BINDER	AMOUNT AMOUNT	
ARIZONA PUBLIC SERVICE PO BOX 21666, PHOENIX AZ 85036 BEG NE COR NE4 TH W 1670.90F TO TPOB TH W 50F TH S 800.43F TH E 550F TO PT ON W R/W LN OF SPRR TH N 255.93F TH W 400F TH N 544.50F TO TPOB EX N 33 F RD ***** CANCELED PARCEL ***** AS OF 02/07/85 ***** CANCELED PARCEL ***** AS OF 08/21/85 TIERRA ASSOCIATES LTD ETAL 501 W VAN BUREN, AVONDALE AZ 85323 S 2753F W2 E2 & S 2753F E 660F W2 EX S 33F TH/OF TIERRA ASSOCIATES LTD ETAL 501 W VAN BUREN, AVONDALE AZ 85323 E 660F W2 EX S 2753F & ALSO W2 E2 EX S 2753F & EX E 550F OF N 800.43F & EX N 33F TH/OF NEMER STANLEY & ADELLA TR ETAL 5354 PARKDALE DR #310, MINNEAPOLIS MN 55416 NW4 SEC 9 EX E 660F EX W 33F EX N 33F BECK 232 LTD 2700 N 3RD ST STE 2008, PHOENIX AZ 85004 SW4 SEC 9 EX E 660F EX W 33F EX S 33F ***** CANCELED PARCEL ***** AS OF 04/03/76 ***** CANCELED PARCEL ***** AS OF 05/17/77 ***** CANCELED PARCEL ***** AS OF 09/03/85 LITCHFIELD PARK PROPERTIES PO BOX 747, LITCHFIELD PARK AZ 85340 PT SW4 SE4 SE4 EX ANY PT LY W/I RR R/W & EX S 33F TH/OF & EX BEG AT SE COR OF SE4 TH N 33F & W 33F TH W 1018F M/L TPOB TH W TO E LN 50F AER CA TH N 543.62F TH E 331.18F TH S 543.62F TH W 130F TPOB & EX N 60F TH/OF GOODYEAR TOWN OF 119 N LITCHFIELD RD, GOODYEAR AZ 85338 PT SE4 DAF COM AT SE COR OF SEC 9 TH W 636.62F TH	13679/0260 06/06/79 09 1N 1W 4493 1 S 714 5.00 09 01N 01W 4493 1 0 714 126.27 09 01N 01W 4493 1 0 714 99.17 09 01N 01W 4493 1 0 714 115.38 09 01N 01W 4493 1 0 714 115.38 09 01N 01W 4490 1 0 09 1N 1W 4490 1 0	500-04-018C 500-04-018D 500-04-018E 500-04-018F 500-04-018G 500-04-018H 500-04-018J 500-04-019 500-04-019B 500-04-019C 500-04-019D 500-04-019E	543738 135935 1505-CM-OF 25.0X 4.993 80470 12875 4100-F&R-FLD CROP 16.0X 124.760 63255 10120 4100-F&R-FLD CROP 16.0X 98.073 74420 11905 4107-F&R-FLD CROP 16.0X 115.381 74420 11905 4100-F&R-FLD CROP 16.0X 115.381 339768 54365 0020-VACANT LAND 16.0X 3.120 500 80 8800-SPEC-LIMITED 16.0X CON'T	18518 4630 ICEBLDG 25.0X 80470 12875 4100-F&R-FLD CROP 16.0X 124.760 63255 10120 4100-F&R-FLD CROP 16.0X 98.073 74420 11905 4107-F&R-FLD CROP 16.0X 115.381 74420 11905 4100-F&R-FLD CROP 16.0X 115.381 339768 54365 0020-VACANT LAND 16.0X 3.120 500 80 8800-SPEC-LIMITED 16.0X CON'T					

## MARICOPA COUNTY, ARIZONA

MARICOPA COUNTY, ARIZONA									
01-16-87		BOOKET-PAGE		LOT-BLACK-TRACT		CASH VALUE		EXEMPTIONS	
OWNER'S NAME CONTRACT TO SELL ADDRESS (MAILING) (IF DIFFERENT) LEGAL DESCRIPTION		DATE		SECT-TYPED-TRACT AREA COR. STATES-PR-LP SPECIAL CASE CODE		CASH VALUE ASD VALUE CLASS PERCENT % ACREAGE		CASH VALUE ASD VALUE CLASS PERCENT % ACREAGE	

9165

9165

# MARICOPA COUNTY, ARIZONA

TRACT NAME CONTRACT TO SELL ADDRESS MAILING LEGAL DESCRIPTION	DEED-PRICE DATE	LOT-BLOCK-TRACT SECT-TOWNSHIP-RANGE AREA CORN SOLIDS-PO-AP SPECIAL DISTRICT CODE	PARCEL NO.	LAND ACRES CLASS PERCENT % ADJACENT	REPRESENTATIVE CASH VALUE ADJ VALUE CLASS PERCENT %	PERCENT PROP.	EXEMPTED G-10 PAGE 180
N 1101.62F TO TPOB TH CONT N 406F TH E 60F TH S 190.50F TH W 0.44F TH S 215.50F W 59.56F TPOB			500-04-019D	CON'T	.558		
LITCHFIELD ROAD 26 LTD	86-107160 03/05/86	9 1N 1W 4490 1 0	500-04-019E	2847517 455605 0085-VACANT	LAND	16.0% 26.148	
6710 E CAMELBACK RD, SCOTTSDALE AZ 85251 COM AT NE COR OF SE4 SE4 TH W 65F TO TPOB TH CONT G W 512.06F TH N 190.5F TH W 642.90F M/L TO PT ON E LN OF RR R/W TH N TO A PT WH IS 2640F S OF N L N SD SEC TH E 1159.16F TH S TO POB EX N 459.28F O F E 602.06F							
HKS LEASING CO	10746/0459 07/18/74	9 1N 1W 4490 1 0	500-04-019F	547331 136835 3710-IND-WAREHOUSE	246167 61540 25.0%	25.0%	
Z DAVID L MOONIE CO 750 WELSH RD, PALO ALTO CA 94304 COM AT SE COR OF SD SEC TH W 636.62F TH N 1117.62 F TO NE COR OF MOST ELY POR OF A PAR OF LAND CONV TO TOWN OF GOODYEAR P/D 10473/115 & THE POB TH W 482.84F TH N 84F TH W 100F TO PT OF INTER WITH R R/W TH N 306F TH E 582.90F M/L TO A PT WH BEARS W 636.62F FR E LN OF SD SEC TH S 390F TO POB							
SIMON WILLIAM F & SANDRA A	85-145889 04/03/85	09 01N 01W 4490 1 0	500-04-019G	56301 9010 0022-VACANT	LAND	16.0% .517	
404 SAGEBRUSH, LITCHFIELD PARK AZ 85340 TH PT SE4 SE4 DAF BEG SE COR SEC TH W 576.72F TH N 636.62F TO POB TH CONT N 80F E 281.59F S 80F TH W 281.59F TO POB							
LITCHFIELD PARK PROPERTIES INC	15456/0819 08/18/81	09 01N 01W 4490 1 0	500-04-019H	300564 48090 0022-VACANT	LAND	16.0% 2.760	
111 W INDIAN SCHOOL RD, LITCHFIELD PARK AZ 85340 PT E2 SE4 SE4 DAF BEG AT SE COR SE4 TH N 636.62F TO TPOB TH W 636.62F N 462.62F E TO E LN OF SE4 SE4 TH S TO POB EX E 288.03F EX S 80F & EX W 40F RD							
GOODYEAR TOWN OF	10473/0115 01/11/74	9 1N 1W 4490 1 E	500-04-020	500 80 0010-VACANT	LAND	16.0% .408	
119 N LITCHFIELD RD, GOODYEAR AZ 85338 COMC SE COR SEC TH W 636.62F TH N 1101.62F TPOB T W W 582.85F TH N 100F TH E 100F TH S 84F TH E 482 .90F M/L TH S 16F TO POB							
MOUNTAIN STATES TELEPHONE & TELEGRAPH CO							
Z L B JOLLY 16 W MCDOWELL RD RM 300, PHOENIX AZ 85003 PT SE4 SEC 9 BEG INTERSEC N LN S 33F & E LN N 50F AER CO TH N 543.62F E 200F S 543.62F W 200F TO P OB EX S 12F P/D 10732/49		9 1N 1W 4490 1 S	500-04-021	266260 79880 5200-UTIL-TEL-TELG		30.0% 2.445	
KARSTETTER A T & FAYE E	86-448333		500-04-022 500-04-022	36808 CON'T	39742		

# MARICOPA COUNTY, ARIZONA

TRACT NAME CONTRACT TO SELL ADDRESS MAILING LEGAL DESCRIPTION	DEED-PRICE DATE	LOT-BLOCK-TRACT SECT-TOWNSHIP-RANGE AREA CORN SOLIDS-PO-AP SPECIAL DISTRICT CODE	PARCEL NO.	LAND ACRES CLASS PERCENT % ADJACENT	REPRESENTATIVE CASH VALUE ADJ VALUE CLASS PERCENT %	PERCENT PROP.	EXEMPTED M-10 PAGE 181
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01-14-  
OWNER'S NAME  
CONTRACT TO SELL  
ADDRESS MAILING  
LEGAL DESCRIPTION

PO BOX 1  
E 240F  
NE4 (E4  
POB & AL

HARVEY M

129 LA C  
BEG AT S  
TH E 340  
329.65F

NORTH JA

4826 N  
BEG AT  
E 455.8  
329.63F

HARPER

5349 W  
W2 S2

HARPER

5349 E  
E2 S2

GOODWIN

826 L  
6:5 16  
TH PT  
1280.0  
74F E  
145F

ROBIN

1105 N  
TH PT S  
1280.0  
329.71F

ELIOT G

6832 E  
POR OF  
216F E

01-14-

**MARICOPA COUNTY, ARIZONA**

[illegible]

01-16-87	00000000	PARCEL NO.	LAND	IMPROVEMENTS	PERM. PROP.	EXEMPTIONS	D-10	PAGE 9177
OWNER'S NAME CONTRACT TO CASE ADDRESS MAILING SITE# COMBED- LEGAL DESCRIPTION	BUCKET - PAGE DATE	LOT - BLOCK - TRACT RECT - TRACT - CASE AREA CASE STATUS - PG - LP SPECIAL DISTRICT CASE AMOUNT	BOOK PAGE PARCEL	CASH VALUE ASD VALUE CLASS PERCENT % ACRES	CASH VALUE ASD VALUE CLASS PERCENT %	CASH VALUE ASD VALUE	EXEMPTIONS CLASS T PERCENT NUMBER	AMOUNT AMOUNT AMOUNT
229.64F TH W 569.06F TH N 229.64F TH E 569.06F T O POB EX E 45F RD P/D 11965-86			500-04-014A	CON'T 2.815				
BAYLESS INVESTMENT & TRADING CO			500-04-015B	528111 132030 1410-SHOPP 25.0% 6.466	800335 2000E5 NG CNTR 25.0%			
PO BOX 9218, PHOENIX AZ 85068 PT SE4 SE4 BEG SF COR SEC TH N 33F TH W 38F TO PO B TH NWLY TO PT WH IS 576.62F N & 55F W OF SE COR SEC TH W 521.62F TH S 543.62F TH E 538.62F TO PO B EX N 12F OF S 45F OF E 576.62F SEC & EX ANY PT WH LY IN E 40F SEC	9 1N 1W 4490 1 0		500-04-015D					
*** CANCELED PARCEL *** AS OF 03/08/74			500-04-015F	114998 28750 1100-CM-STOR-BLDG 25.0% 1.056	119610 29905 25.0%			
CORDY LEE L & EDNA 83-523878 12/30/83	9 1N 1W 4490 1 0		500-04-015H	19602 4900 3730-IND-WAREHOUSE 25.0% .180	42525 10630 25.0%			
310 N LITCHFIELD RD, GOODYEAR AZ 85338 PT SE4 SE4 BEG NE COR SE4 SE4 W 33F S 230F TO TR POB CONT S 200F W 262.03F N 200F E 262.03F TO TR POB AS ORIG CONV P/D 5272-0339 EX E 85F RD P/D 1 1978-0601	9 1N 1W 4490 1 0		500-04-015J	26572 6645 1110-CM-STOR-BLDG 25.0% .244	50766 12690 25.0%			
SIMON WILLIAM F & SANDRA A 83-287611 07/22/83	9 1N 1W 4490 1 0		500-04-015L	306009 76500 3100-IND-MFG DURAB 25.0% 2.810	449974 112495 25.0%			
404 SAGEBRUSH, LITCHFIELD PARK AZ 85340 160 N LITCHFIELD RD PT SE4 SE4 BEG SE COR N 636.62' W 33' TO TR POB CONT W 262.03' N 80' E 262.03' S TO POB EX E 165' TH/OF .18 AC	9 1N 1W 4490 1 0		500-04-015Q	41100 10760 1100-CM-STOR-BLDG 25.0% .396	71735 19735 25.0%			
YUEN CHERK LIN & MARILYN 83-037418 02/01/83	9 1N 1W 4490 1 0							
133 RAWHIDE, RIDGECREST CA 93555 200 N LITCHFIELD RD PT SE4 SE4 E 165F OF FOL BEG SC COR TH N 636.62F W 33F TO TPOB CONTG W 262.03F N 80F E 262.03F S T O TPOB EX E 32F FOR RD PURPOSES	9 1N 1W 4490 1 0							
STEENECK MARTIN J & CHRISTIAN I								
P O BOX 1026, LITCHFIELD PARK AZ 85340 PT E2 SE4 BEG NE COR SE4 TH W 33F TO POB CONT W 5 69.06F S 229.64F E 569.06F N 229.64F TO POB EX E 65F RD P/D 11965-86	9 1N 1W 4490 1 0							
*** CANCELED PARCEL *** AS OF 07/16/72								
JONES DE N & CLAYRE E 15011/0226 02/06/81	9 1N 1W 4490 1 0							
509 N 94TH DR, TOLLESON AZ 85353 PT SE4 SE4 BEG NE COR SE4 SE4 W 33F S 430F TO TR POB CONT S 75F W 262.03F N 75F E 262.03F TO TR PO B AS ORG CONV P/D 5272/339 EX E 65F P/D 11928/23	9 1N 1W 4490 1 0							

## MARICOPA COUNTY, ARIZONA

01-16-87	00000000	PARCEL NO.	LAND	IMPROVEMENTS	PERM. PROP.	EXEMPTIONS	E-10	PAGE 9178
OWNER'S NAME CONTRACT TO CASE ADDRESS MAILING SITE# COMBED- LEGAL DESCRIPTION	BUCKET - PAGE DATE	LOT - BLOCK - TRACT RECT - TRACT - CASE AREA CASE STATUS - PG - LP SPECIAL DISTRICT CASE AMOUNT	BOOK PAGE PARCEL	CASH VALUE ASD VALUE CLASS PERCENT % ACRES	CASH VALUE ASD VALUE CLASS PERCENT %	CASH VALUE ASD VALUE	EXEMPTIONS CLASS T PERCENT NUMBER	AMOUNT AMOUNT AMOUNT
*** CANCELED PARCEL *** AS OF 12/08/73			500-04-015S					

01-16-87
AMOUNT
AMOUNT
AMOUNT

Phoenix-Goodyear Airport RI?FS  
Site Access for Monitoring Wells  
to be installed 1987

Section 16 (T1N,R1W) (First 4 GAC well sites, possibly  
2nd ring along Bullard Avenue)

1. Parcels 500-7-006D, 006G, 006H

James Mummert  
General Aviation Superintendent  
City of Phoenix  
Phoenix-Goodyear Municipal Airport  
Administration Building  
Goodyear, Arizona 85338

2. Parcels 500-7-001, 006B

Delta Cor Investments  
3300 North Central Avenue #2100  
Phoenix, Arizona 85012

Section 17 (T1N,R1W) (Possible 2nd Ring down tailwater  
ditch)

1. Parcel 500-7-006 H - City of Phoenix
2. Parcels 500-7-007, 008, 009, 010C, 011

Leo C. Smith, et al.  
4434 W. 62nd Drive  
Phoenix, Arizona 85033

3. Parcels 500-7-014C, 015, 016C, 017D

R.R. and Jewel A. Wood  
P. O. Box 1118  
Avondale, Arizona 85323

Section 20 (T1N,R1W) North of Southern Pacific Railroad  
tracks (Possible 2nd and subsequent  
rings)

1. Parcel 500-7-006G, 006H - City of Phoenix
2. Parcel 500-7-018C

International Mill Service, Inc. - Owner  
1818 Market Street  
Philadelphia, Pennsylvania 19703



Reclaimed Metals - Plant Manager  
Goodyear Plant  
1393 South Reems Road  
Goodyear, Arizona 85338

3. Parcel 500-7-0312D - R.R. Wood

Section 21 T1N,R1W) North of Southern Pacific Railroad  
tracks

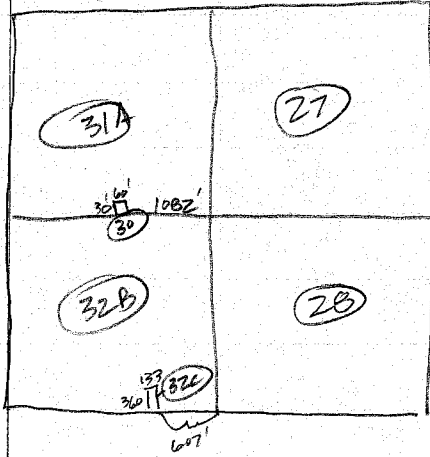
1. Parcels 500-7-006G, 006H - City of Phoenix

CH2M HILL  
INDEX FORM  
FOR REM IV FILE CLOSEOUT  
(Please print legibly or type.)

If it is more convenient, when indexing the file, complete those sections that will remain the same through the majority of the site file (nos. 1 through 8). Then photocopy this form onto colored paper (to make it more obvious in the file) and complete nos. 9 and 10 as necessary.

<b>1</b> File Originator	Team Member's Name JOHN LUCERO		Office Location RDD	
	Team Member's Firm CH2M HILL <input checked="" type="checkbox"/> B&V <input type="checkbox"/> E&E <input type="checkbox"/> ICF <input type="checkbox"/> PRC <input type="checkbox"/>			
	Subcontractor <input type="checkbox"/>			
<b>2</b> Site Manager	Site Manager's Name JOHN LUCERO		Office Location RDD	
	Site Manager's Firm CH2M HILL <input checked="" type="checkbox"/> B&V <input type="checkbox"/> E&E <input type="checkbox"/> ICF <input type="checkbox"/> PRC <input type="checkbox"/>			
<b>3</b>	Work Assignment Number 030 - 9L19.0		<b>4</b>	EPA Region IX
<b>5</b>	Master Project Number RDD63600		<b>6</b>	Project Start Date (mon/yr) 04 / 1986
<b>7</b>	Site Name PHOENIX-GOODYEAR AIRPORT, AZ			
<b>8</b>	Site Location GOODYEAR, ARIZONA			
<b>9</b> Section/ Subsection	Description (limited to 100 characters/spaces) GROUNDWATER FILES - FOLDER 5 OF 68			
<b>10</b> Comments	(These comments will not become part of the indexing information.)			
	SOME DOCUMENTS REFERENCE REM/FIT CONTRACT NO.68-01-6692			
	WORK ASSIGNMENT NO. 073-9L19.0; MASTER PROJECT NO. W69219			
<b>FOR ZPMO USE</b>	(Oversize Documents)			
	5 OVERSIZE PAGE(S) WERE REMOVED FROM THIS LOCATION FOR 35MM FILMING. REFERENCE: 05-1 THRU 05-5			

(B-1-1) 13



500-06-0---

2700 N. 3rd St Ste 200B  
Phx 85004  
500-06-027 Finney 155 Ltd Partnership  
4111 N. Scottsdale Ste 315 85251  
500-06-028 Goodyear Investors I Ltd P.  
500-06-30 RID  
2700 N. 3rd St Ste 200B  
85004  
500-06-31A Savival 155 Ltd P.  
500-06-32B Rtel Box 8 Goodyear 85338  
Presley E & Mary E Phillips  
500-06-32C Rtel Box 8 Goodyear 85338  
Presley E & Andea M Phillips

⊕ Certain - deep wells  
next to last ring installed  
by GAC

△ Potential <sup>well site</sup> 2<sup>nd</sup> Ring

⊗ Potential 2<sup>nd</sup> or 3<sup>rd</sup>  
Ring

⬡ Potential 3<sup>rd</sup> or 4<sup>th</sup>  
Ring

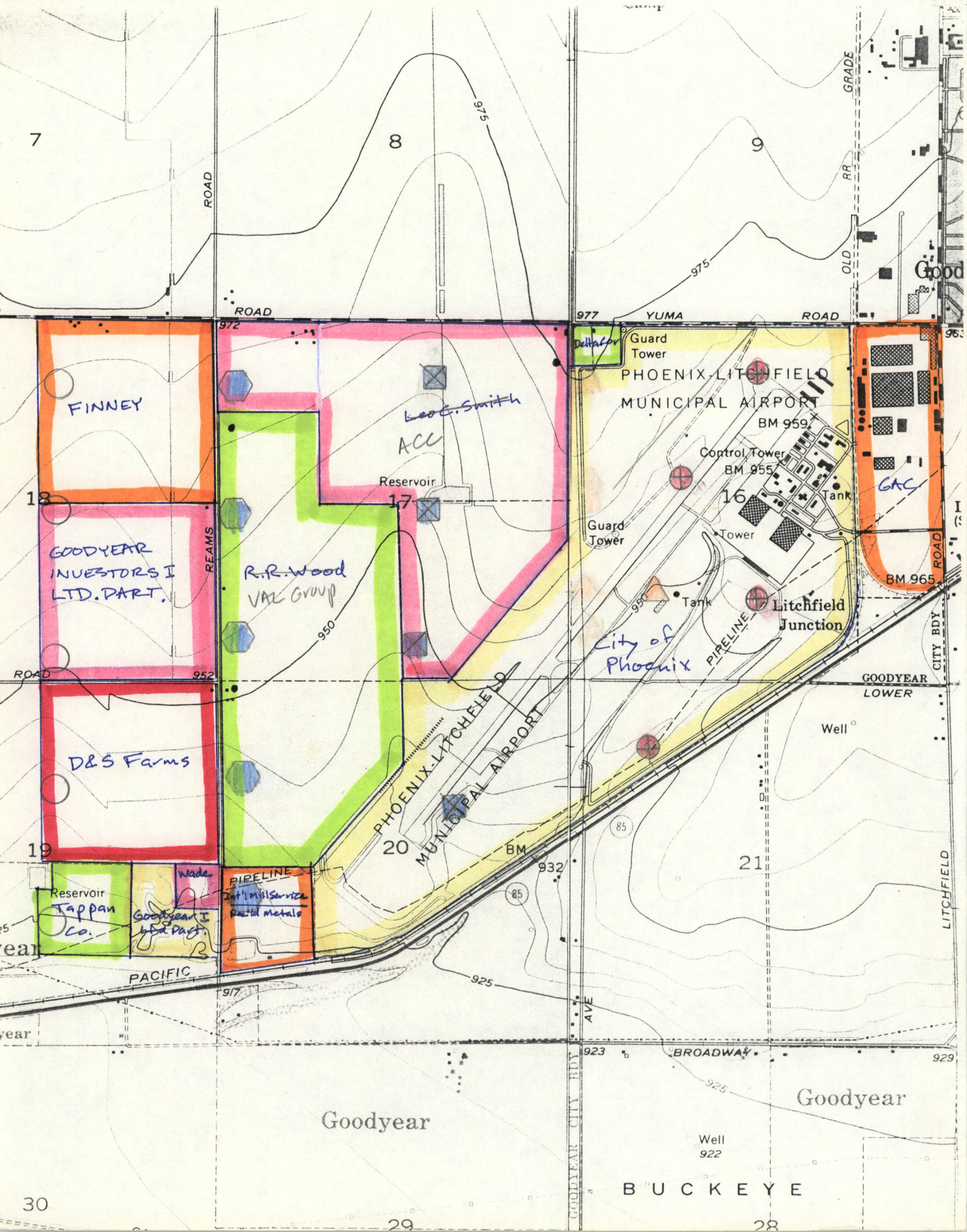
○ Potential 4<sup>th</sup> or 5<sup>th</sup>  
Ring

12 Pilot Holes  
@ 380'

12 C wells  
@ 350'

8 A wells  
@ 125'







YUMA ROAD

Monitoring  
Well and  
Storage  
Tank Site  
(1-300' well)

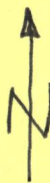
Existing  
Production  
Well  
(B-1-1) 17AADZ

BULLARD AVENUE

Monitoring  
Well  
Site  
(1-300' well)

Monitoring  
Well  
Site  
(1-100' well)  
(1-300' well)

PHOENIX-GOODYEAR  
AIRPORT RUNWAY



Scale:  
1"=500'



CH2M Hill

WELL ENGINEERING SURVEYS

welenco

RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE 3/27/87

COMPANY CH2M Hill

WELL NUMBER EMW 21

LOCATION Phoenix/Litch Field

LICENSEE WELENCO, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER 7-300

DATE OF USE 3/27/87

SEALED SOURCE USED Cem Be 242 300 71-1-119

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use;
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

Sandy Conley  
For Welenco, Inc.

3/27/87  
Date

Rich Reed  
NAME  
COMPANY CH2M Hill

Rich Reed  
SIGNATURE

3/27/87  
DATE

## RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE..... 3/29/87COMPANY..... CH2M HillWELL NUMBER..... EMW 13LOCATION..... Phoenix Fitch Field AirportLICENSEE..... WELenco, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER..... 7-300

DATE OF USE..... 3/29/87SEALED SOURCE USED... AmBe 241 71-1-119 3 cu

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use; and
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

Darryl Carrell  
For Welenco, Inc.

3/29/87  
Date

Rich Reed  
NAME  
COMPANY CH2M Hill  
Rich Reed  
SIGNATURE  
3/29/87  
DATE



## RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE..... 3/24/87COMPANY..... CH2M HillWELL NUMBER..... EMW19LOCATION..... Phoenix-Litchfield AirportLICENSEE..... WELenco, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER..... 7-300

DATE OF USE..... 3-24-87SEALED SOURCE USED... Am BE 241 71-1-119

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use;
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

Gary Colwell  
For Welenco, Inc.

3/24/87  
Date

Rich Reed  
NAME  
COMPANY CH2M Hill

SIGNATURE  
Rich Reed  
DATE 3/24/87

## RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE..... 3/17/87COMPANY..... CH2M HILLWELL NUMBER..... EMW18LOCATION..... Phoenix Litchfield AirportLICENSEE..... WELenco, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER..... 7-300

DATE OF USE..... 3/17/87SEALED SOURCE USED... AmBe 241 300 71-1-119

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use;
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

Darry Carlisle  
For Welenco, Inc.

3/17/87  
Date

Rich Reed  
NAME  
COMPANY CH2M Hill  
SIGNATURE Rich Reed  
DATE 3/17/87

CH2M Hill

WELL ENGINEERING SURVEYS

welenco

RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE..... 3/25/87

COMPANY..... CH2M Hill

WELL NUMBER..... EMW20

LOCATION..... Phoenix - Litch Field Airport

LICENSEE..... WELenco, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER..... 7-300

DATE OF USE..... 9-25-87

SEALED SOURCE USED... AmBe 241 71-1419 3cu

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use;
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

Gary Corbell  
For Welenco, Inc.

3/25/87  
Date

Rich Reed  
NAME  
COMPANY CH2M Hill

SIGNATURE Rich Reed  
DATE 3/25/87

RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE.....

COMPANY.....

WELL NUMBER.....

LOCATION.....

LICENSEE.....WELENCO, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER.....7-300

DATE OF USE.....

SEALED SOURCE USED...

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use; and
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

For Welenco, Inc.

Date

NAME

COMPANY

SIGNATURE

DATE

RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE.....

COMPANY.....

WELL NUMBER.....

LOCATION.....

LICENSEE.....WELENCO, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER.....7-300

DATE OF USE.....

SEALED SOURCE USED...

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use; and
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

For Welenco, Inc.

Date

NAME

COMPANY

SIGNATURE

DATE

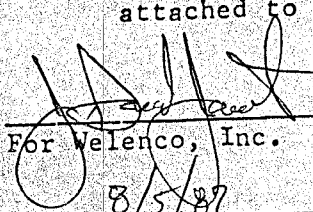
RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCESDATE..... 8/5/87COMPANY..... LAYNE ENVIRONMENTALWELL NUMBER..... Emw-26LOCATION..... SOUTH 1/2 mile of Goodyear AirportLICENSEE..... WELenco, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER..... 7-300

DATE OF USE..... 8/5/87SEALED SOURCE USED... AmBe 241 71-1-119

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use; and
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

  
For Welenco, Inc.

Date

8/5/87

Peter A. Mock  
NAME  
COMPANY CHEM HILL  
Peter A. Mock  
SIGNATURE  
8/5/87  
DATE

## RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE..... 7-31-87

COMPANY..... CH2M HILL  
9830 S. 51ST STREET  
SUITE A-130  
PHOENIX AZ 85044 893-6155

WELL NUMBER..... EMW-29 251

LOCATION..... GOODYMAN

LICENSEE..... WELENCO, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER..... 7-300

DATE OF USE..... 7-31-87

SEALED SOURCE USED... AmBe 241 71-1-119 3CURIE

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use; and
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

Gary Corbett  
For Welenco, Inc.

7-31-87  
Date

Don Huff - Black & Veatch  
NAME  
COMPANY for CH2M Hill

SIGNATURE  
7-31-87

DATE

## RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE..... June 16, 1987COMPANY..... CH2M HILLWELL NUMBER..... EMW-28LOCATION..... Phx - Goodyear AirportLICENSEE..... WELCO, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER..... 7-300

DATE OF USE..... June 16, 1987SEALED SOURCE USED... AmBe 241 71-1-119 3cw

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use; and
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

Darryl Carlier  
For Welenco, Inc.

June 16, 1987  
Date

Peter A. Moch  
NAME  
COMPANY CH2M HILL, Inc.  
SIGNATURE  
June 16, 1987  
DATE



## RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE..... JUNE 6, 1987

COMPANY..... CHAM HILL  
9830 S. 51ST STREET  
SUITE A-130  
PHOENIX AZ 85044

WELL NUMBER..... EMW27

LOCATION..... GOODYEAR AIRPORT

LICENSEE..... WELENCO, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER..... 7-300

DATE OF USE..... JUNE 6, 1987

SEALED SOURCE USED... AmBe 241 300 (71-1-114)

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use; and
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

Gary Carhill  
For Welenco, Inc.  
JUNE 6, 1987  
Date

RICH REED  
NAME  
COMPANY CHAM HILL  
SIGNATURE [Signature]  
DATE 6/6/87

ARIZONA RADIATION REGULATORY AGENCY  
**RADIOACTIVE MATERIAL LICENSE**

Pursuant to Chapter 4, Title 30, Arizona Revised Statutes, and the Arizona Radiation Regulatory Agency Regulations for the Control of Ionizing Radiation, and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess and use the radioactive material designated below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations, and orders now or hereafter in effect and to any conditions specified below.

Licensee		3. License number 7-300
1. Name	WELENCO	4. Expiration date November 30, 1991
2. Address	625 South Smith Road Suite 17 Tempe, Arizona 85281	5.
6. Radioactive material (element and mass number)	7. Chemical and/or physical form	8. Maximum quantity licensee may possess at any one time
A. Cesium-137	A. Sealed Source (Gulf Nuclear Model VL-1)	A. Two (2) sources not exceed 125 milli- curies each
B. Americium-241/ Beryllium	B. Sealed Source (Gulf Nuclear Model 71-1)	B. Three (3) sources not to exceed five (5) curies each.
9. Authorized Use:  A & B. Logging of wellbores.		

CONDITIONS

10. Radioactive material may be used at the licensee's facility located at 625 South Smith Road, Suite 17, Tempe, Arizona 85281 and at temporary jobsites of the licensee throughout the state of Arizona, wherever the Agency maintains regulatory authority for the use of radioactive materials.
11. The licensee shall comply with the provisions of Title 12, Chapter 1, Arizona Compilation of Rules and Regulations; Article 4, "Standards for Protection Against Radiation"; and Article 10, "Notices, Instructions and Reports to Workers; Inspections."

ARIZONA RADIATION REGULATORY AGENCY

**RADIOACTIVE MATERIAL LICENSE**

SUPPLEMENTARY SHEET

License Number 7-300

12. Radioactive material shall be used by, or under the supervision of, William Bramham, Gary Corbell, and Michael Ridder.

The Radiation Safety Officer for this license is Gary Corbell.

13. Prior to mailing, leak-test samples shall be surveyed to ensure that the radiation level at any point on the external surface of the package does not exceed 0.5 mR/hr.
14. Sealed sources containing radioactive materials shall not be opened.
15. The licensee shall report by telephone within 24 hours to the Agency the loss or potential abandonment downhole of any sealed source containing radioactive material. In addition, a written report shall be submitted within 30 days for the loss or abandoned source which shall include information regarding the isotope, amount, location, depth, method of immobilization, sealing, placarding and notations to be placed in public records.
16. Each source holder and logging tool containing radioactive material shall display a legible and visible marking. The marking shall bear the conventional radiation symbol and the following wording: DANGER - RADIOACTIVE - DO NOT HANDLE - NOTIFY CIVIL AUTHORITIES.
17. Licensee shall conduct a physical inventory every six months to account for all sealed sources of radioactive material received and possessed under this license. The records of the inventory shall be maintained for five years from the date of the inventory, and shall be available for inspection by the Agency. The information recorded shall include the kind and quantity of radioactive material, the model and serial number of the source or the device in which it is mounted, the location of the sealed source and the date of the inventory.
18. The licensee may transport radioactive material or deliver material to a carrier for transport in accordance with the provisions of A.C.R.R. Title 12, Chapter 1, Article 15.
19. A. Each sealed source containing radioactive material, other than Hydrogen-3, with a half-life greater than 30 days and in any form other than gas, shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, the sealed source shall not be put into use until tested.

ARIZONA RADIATION REGULATORY AGENCY

**RADIOACTIVE MATERIAL LICENSE**

SUPPLEMENTARY SHEET

License Number 7-300

- B. The test shall be capable of detecting the presence of 0.005 microcurie of removable contamination on the source. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Agency.
- C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Agency regulations. A report shall be filed within five days of receipt of test results with the Agency describing the equipment involved, the test results and the corrective action taken.
- D. Tests for leakage and/or contamination shall be performed by persons specifically authorized by the Agency, another Agreement State, or the U.S. Nuclear Regulatory Commission.
- E. The licensee is authorized to collect leak test samples in accordance with the procedures submitted in:

Application dated March 16, 1982.

20. Condition 20

- A. The licensee may not permit and individual to act as a logging supervisor until that person:
  - 1. Has completed at least 40 hours of formal training in the subjects outlined in paragraph (e) of this section;
  - 2. Has received copies of and instruction in:
    - a. ARRA regulations in the applicable section of Articles 1, 3, 4, 10, 12 and 15;
    - b. The ARRA license under which the logging supervisor will perform well-logging operations; and
    - c. The licensee's operating, recordkeeping, and emergency procedures.
  - 3. Has completed 3 months of on-the-job training and demonstrated competence in the use of licensed materials, remote handling tools, and radiation survey instruments by a field evaluation; and

ARIZONA RADIATION REGULATORY AGENCY

RADIOACTIVE MATERIAL LICENSE

SUPPLEMENTARY SHEET

License Number 7-300

4. Has demonstrated understanding of the requirements in paragraphs 1. and 2.J of this subsection by successfully completing a written test.
- B. The licensee may not permit an individual to act as a logging assistant until that person:
  1. Has received instruction in the applicable sections of Article 1, 3, 4 and 10;
  2. Has received copies of and instruction in the licensee's operating and emergency procedures;
  3. Has demonstrated understanding of the materials listed in paragraphs 1. and 2. of this subsection by successfully completing a written or oral test; and
  4. Has received instruction in the use, under the personal supervision of the logging supervisor, of tracer material, sealed sources, remote handling tools, and radiation survey instruments.
- C. The license shall provide for the annual retraining of logging supervisors and logging assistants.
- D. The licensee shall maintain a record of each logging supervisor's and logging assistant's training, including copies of written tests and dates of oral tests, for 3 years following the termination of employment.
- E. The licensee shall include the following subjects in the formal training required in paragraph A.1. of this condition:
  1. Fundamentals of radiation safety:
    - a. Characteristics of radiation;
    - b. Units of radiation dose and quantity of radioactivity;
    - c. Hazards of exposure to radiation;
    - d. Levels of radiation from licensed material;
    - e. Methods of controlling radiation dose:
      - i. Working time;
      - ii. Working distances;
      - iii. Shielding;

ARIZONA RADIATION REGULATORY AGENCY  
**RADIOACTIVE MATERIAL LICENSE**  
SUPPLEMENTARY SHEET

License Number 7-300

- f. Radiation safety practices, including prevention of contamination, and methods of decontamination.
- 2. Radiation detection instrumentation to be used:
  - a. Use of radiation survey instruments:
    - i. Operation;
    - ii. Calibration;
    - iii. Limitations;
  - b. Survey techniques;
  - c. Use of personnel monitoring equipment;
- 3. Equipment to be used:
  - a. Handling equipment and remote handling tools;
  - b. License materials;
  - c. Storage, control and disposal of equipment and licensed material;
  - d. Operation and control of equipment and licensed materials;
  - e. Maintenance of equipment;
- 4. The requirements of pertinent Federal and State regulations; and
- 5. Case histories and potential consequences of accidents in well-logging operations.

21. Condition 21

- A. The licensee shall not perform well-logging operations with a sealed source unless the licensee executes a written agreement with the well owner, operator, drilling contractor or land owner, whichever engaged the licensee to perform well logging operations. A copy of the agreement must be maintained at the field location during logging operations. The licensee shall retain a copy of the written agreement for three (3) years after completion of the well logging operation.

ARIZONA RADIATION REGULATORY AGENCY  
**RADIOACTIVE MATERIAL LICENSE**  
SUPPLEMENTARY SHEET

License Number 7-300

B. The written agreement shall specify that:


1. If a sealed source becomes lodged in the well, a reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use; and
5. If a sealed source becomes lodged in the well and cannot be retrieved, at least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer.

22. Except as specifically provided otherwise by this license, the licensee shall possess and use the radioactive material described in Items 6, 7 and 8 of this license in accordance with the statements, representations and procedures contained in:

- 1) Application dated May 6, 1986, signed by Gary Corbell;
- 2) Letter, with attachments, dated September 24, 1986, signed by Gary Corbell.

The Agency's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

---

  
Charles F. Tedford, Director

DATE ISSUED:  
November 7, 1986

ph:CFT:bj

## PRICE SCHEDULE



**BAKERSFIELD**  
**(805) 834-8100**

**TEMPE, ARIZONA**  
**(602) 968-7176**





CH2M HILL ENVIRONMENTAL LABORATORY  
2218 RAILROAD AVENUE  
REDDING, CA 96001 916-243-5831

REPORT TO: PHOENIX GOODYEAR AIRPORT  
CH2M HILL/PHX  
W63600.FQ

ATTENTION: PETER MOCK  
SAMPLE DESCRIPTION: SOIL  
DATE OF SAMPLE: 2-8-88

REFERENCE NUMBER: E19295

PAGE 1 OF 5

DATE: 2-22-88

PHONE:

SAMPLED BY: PETER MOCK

DATE RECEIVED: 2-11-88

TEST METHODS: EPA-601-8010

*Drill Cuttings*

CONSTITUENT	EMW 29A	METHOD BLANK
Chloromethane	<0.1	<0.1
Bromomethane	<0.1	<0.1
Dichlorodifluoromethane	<0.1	<0.1
Vinyl chloride	<0.1	<0.1
Chloroethane	<0.1	<0.1
Methylene chloride	1.0	1.0
Trichlorofluoromethane	<0.1	<0.1
1,1-Dichloroethene	<0.1	<0.1
1,1-Dichloroethane	<0.1	<0.1
trans-1,2-Dichloroethene	<0.1	<0.1
Chloroform	0.7	0.8
1,2-Dichloroethane	<0.1	<0.1
1,1,1-Trichloroethane	0.1	0.2
Carbon Tetrachloride	<0.1	<0.1
Bromodichloromethane	<0.1	<0.1
1,2-Dichloropropane	<0.1	<0.1
cis-1,3-Dichloropropene	<0.1	<0.1
Trichloroethene	<0.1	<0.1
Dibromochloromethane	<0.1	<0.1
1,1,2-Trichloroethane	<0.1	<0.1
trans-1,3-Dichloropropene	<0.1	<0.1
Bromoform	<0.1	<0.1
1,1,2,2-Tetrachloroethane	<0.1	<0.1
Tetrachloroethene	<0.1	<0.1
Chlorobenzene	<0.1	<0.1
1,3-Dichlorobenzene	<0.1	<0.1
1,2-Dichlorobenzene	<0.1	<0.1
1,4-Dichlorobenzene	<0.1	<0.1

COMMENTS: Phoned results to Peter Mock 2-15-88 @ 0955 (GT).  
Results in milligrams per kilogram.  
2-Chloroethylvinyl ether not analyzed

The information shown on this sheet is test data only and  
no analysis or interpretation is intended or implied.

ANALYST: *Brian Davis* APPROVED BY: *J. Hawley*



CH2M HILL ENVIRONMENTAL LABORATORY  
2218 RAILROAD AVENUE  
REDDING, CA 96001 916-243-5831

REPORT TO: PHEONIX GOODYEAR AIRPORT  
CH2M HILL/PHX  
W63600.FQ  
ATTENTION: PETER MOCK  
SAMPLE DESCRIPTION: SOIL  
DATE OF SAMPLE: 8/24/87

REFERENCE NUMBER: 18017  
PAGE 1 OF 1  
DATE: 9/10/87  
PHONE:  
SAMPLED BY: PETER MOCK  
DATE RECEIVED: 8/25/87

TEST METHODS: EPA-601-8010

CONSTITUENT	M-27 B7188131
Chloromethane	<0.1
Bromomethane	<0.1
Dichlorodifluoromethane	<0.1
Vinyl chloride	<0.1
Chloroethane	<0.1
Methylene chloride	<0.5
Trichlorofluoromethane	<0.1
1,1-Dichloroethene	<0.1
1,1-Dichloroethane	<0.1
trans-1,2-Dichloroethene	<0.1
Chloroform	<0.1
1,2-Dichloroethane	<0.1
1,1,1-Trichloroethane	<0.1
Carbon Tetrachloride	<0.1
Bromodichloromethane	<0.1
1,2-Dichloropropane	<0.1
cis-1,3-Dichloropropene	<0.1
Trichloroethene	<0.1
Dibromochloromethane	<0.1
1,1,2-Trichloroethane	<0.1
trans-1,3-Dichloropropene	<0.1
Bromoform	<0.1
1,1,2,2-Tetrachloroethane	<0.1
Tetrachloroethene	<0.1
Chlorobenzene	<0.1
1,3-Dichlorobenzene	<0.1
1,2-Dichlorobenzene	<0.1
1,4-Dichlorobenzene	<0.1

COMMENTS: Results in milligrams per kilogram  
2-Chloroethylvinyl ether not analyzed

The information shown on this sheet is test data only and  
no analysis or interpretation is intended or implied.

ANALYST:

*Brian Goss*

APPROVED BY:

*J. Hawley*



CH2M HILL ENVIRONMENTAL LABORATORY  
221B RAILROAD AVENUE  
REDDING, CA 96001 916-243-5831

REPORT TO: PHOENIX GOODYEAR AIRPORT  
CH2M HILL/PHX W63600.F0

ATTENTION: RICK REED  
SAMPLE DESCRIPTION: SEDIMENTS  
DATE OF SAMPLE: SEE BELOW

REFERENCE NUMBER: E17442  
PAGE 1 OF 1  
DATE: 6-17-87  
PHONE:  
SAMPLED BY: PETER MOCK  
DATE RECEIVED: 6-4-87

TEST METHODS: EPA-601-8010

CONSTITUENT	5/27/87	6/3/87
	16EMW 19D	EMW 19B
Chloromethane	<0.1	<0.1
Bromomethane	<0.1	<0.1
Dichlorodifluoromethane	<0.1	<0.1
Vinyl chloride	<0.1	<0.1
Chloroethane	<0.1	<0.1
Methylene chloride	<0.5	<0.5
Trichlorofluoromethane	<0.1	<0.1
1,1-Dichloroethene	<0.1	<0.1
1,1-Dichloroethane	<0.1	<0.1
trans-1,2-Dichloroethene	<0.1	<0.1
Chloroform	<0.1	<0.1
1,2-Dichloroethane	<0.1	<0.1
1,1,1-Trichloroethane	<0.1	<0.1
Carbon Tetrachloride	<0.1	<0.1
Bromodichloromethane	<0.1	<0.1
1,2-Dichloropropane	<0.1	<0.1
cis-1,3-Dichloropropene	<0.1	<0.1
Trichloroethene	<0.1	<0.1
Dibromochloromethane	<0.1	<0.1
1,1,2-Trichloroethane	<0.1	<0.1
trans-1,3-Dichloropropene	<0.1	<0.1
Bromoform	<0.1	<0.1
1,1,2,2-Tetrachloroethane	<0.1	<0.1
Tetrachloroethene	<0.1	<0.1
Chlorobenzene	<0.1	<0.1
1,3-Dichlorobenzene	<0.1	<0.1
1,2-Dichlorobenzene	<0.1	<0.1
1,4-Dichlorobenzene	<0.1	<0.1

COMMENTS: Results in milligrams per killogram  
2-Chloroethylvinyl ether not analyzed

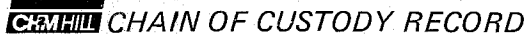
The information shown on this sheet is test data only and  
no analysis or interpretation is intended or implied.

ANALYST:

*Brian Goss*

APPROVED BY:

*J. E. Hawley*

[illegible]

SAMPLED BY AND TITLE (SIGNATURE) <i>Kathy A. Mock Hydrogeologist</i>		DATE/TIME <i>8/22/93 9:30</i>	RELINQUISHED BY: (SIGNATURE) <i>Kathy A. Mock</i>	DATE/TIME <i>8/24/93 10:00</i>	RECEIVED BY: (SIGNATURE) <i>John C. Miller</i>
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY LAB: (SIGNATURE) <i>Kathy A. Mock</i>
REMARKS <i>Sample received in good condition and placed in cooler on ice about 10:00 AM.</i>			SAMPLE SHIPPED VIA <input type="checkbox"/> UPS <input type="checkbox"/> BUS <input checked="" type="checkbox"/> FEDERAL EXPRESS		AIR BUS BILL NUMBER <i>4220064472</i>

FEDERAL  
EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL NUMBER

4220064472

DATE

9/24/87

AIRBILL NUMBER

0064

E1807

From (Your Name) <b>Peter A. Mock</b>		Your Phone Number (Very Important) <b>(602) 443-6153</b>		To (Recipient's Name) <b>2211 P... Highway</b>		Recipient's Phone Number (Very Important) <b>(916) 243-5231</b>	
Company <b>CH2M HILL</b>		Department/Floor No.		Company <b>CH2M HILL</b>		Department/Floor No.	
Street Address <b>9330 S 51ST ST</b>				Exact Street Address (Use of P.O. Boxes or P.O. Zip Codes Will Delay Delivery And Result in Extra Charge.) <b>9330 S 51ST ST</b>			
City <b>PHOENIX</b>		State <b>AZ</b>		City <b>Modesto</b>		State <b>CA</b>	
ZIP Required For Correct Routing <b>85001</b>				ZIP Street Address Zip Required <b>95001</b>			

YOUR BILLING REFERENCE INFORMATION (FIRST 24 CHARACTERS WILL APPEAR ON INVOICE)

W63600.FX

PAYMENT			
<input checked="" type="checkbox"/> Bill Sender	<input type="checkbox"/> Bill Recipient's FedEx Acct. No.	<input type="checkbox"/> Bill Third Party FedEx Acct. No.	<input type="checkbox"/> Bill Credit Card
<input type="checkbox"/> Cash			

SERVICES  
CHECK ONLY ONE BOX

- 1 ☒ **PRIORITY 1**  
Overnight Delivery  
(Using Your Packaging)
- 6 ☐ **OVERNIGHT LETTER\***  
(Our Packaging)  
9 1/2" x 12 1/2"
- 2 ☐ **Courier-Pak Overnight Envelope\***  
12" x 15 1/2"
- 3 ☐ **Overnight Box**  
12 1/2" x 17 1/2" x 3"
- 4 ☐ **Overnight Tube**  
38" x 6" x 6" x 6"
- \*Declared Value Limit \$100.
- STANDARD AIR**  
Delivery not later than  
second business day

## SERVICE COMMITMENT

PRIORITY 1 - Delivery is scheduled early next business morning in most locations. It may take two or more business days if the destination is outside our primary service areas.

STANDARD AIR - Delivery is generally next business day or not later than second business day. It may take three or more business days if the destination is outside our primary service areas.

Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Release

Signature

DELIVERY AND SPECIAL HANDLING  
CHECK SERVICES REQUIRED

- 1 ☐ **HOLD FOR PICK-UP**  
(Fill in Section H at right)
- 2 ☒ **DELIVER WEEKDAY**
- 3 ☐ **DELIVER SATURDAY**
- 4 ☐ **DAANGEROUS GOODS**  
(P-1 and Standard Air Packages only. Extra charge)
- 5 ☐ **CONSTANT SURVEILLANCE SERVICE (CSS)**  
(Extra charge) (See Section 5)
- 6 ☐ **DRY ICE**
- 7 ☐ **OTHER SPECIAL SERVICE**
- 8 ☐
- 9 ☐ **SATURDAY PICK-UP**  
(Extra charge)
- 10 ☐

## PACKAGES

- 1 ☐ **REGULAR STOP**
- 2 ☒ **ON-CALL STOP**
- 3 ☐ **DROP BOX**
- 4 ☐ **B.S.C.**
- 5 ☐ **STATION**
- 6 ☐
- 7 ☐
- 8 ☐
- 9 ☐
- 10 ☐

Date/Time For Federal Express Use

8-24-1531

HOLD FOR PICK-UP AT THIS FEDERAL EXPRESS LOCATION:  
Street Address (See Service Guide or Call 800-238-5355)

City

State

Zip Code of Street Address Required

Ship. No.

Date

☐ Cash Received☐ Return Shipment☐ Third Party☐ Chg. To Del.☐ Chg. To Hold

Street Address

City

State

Zip

Received By:

Date/Time Received

FedEx Employee Number

Federal Express Use

Base Charges

Declared Value Charge

Origin Agent Charge

Total Charges

PART

#106001

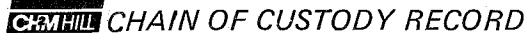
FEC-S-751-1000

REVISION DATE

10/86

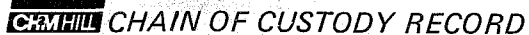
PRINTED U.S.A. GBR

RECIPIENT'S COPY



SAMPLED BY AND TITLE (SIGNATURE) <i>Peter G. Mook Hydrogeologist</i>		DATE/TIME <i>2/25/95 9:30</i>	RELINQUISHED BY: (SIGNATURE) <i>Peter G. Mook</i>	DATE/TIME <i>2:44/10:00</i>	RECEIVED BY: (SIGNATURE) <i>Sandra Lopez</i>
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY LAB: (SIGNATURE)
REMARKS				SAMPLE SHIPPED VIA <input type="checkbox"/> UPS <input type="checkbox"/> BUS <input type="checkbox"/> FEDERAL EXPRESS	
				AIR BUS BILL NUMBER <i>4220064472</i>	

FORM 340



SAMPLED BY AND TITLE (SIGNATURE) <i>Reth A. Mark Hydrogeologist</i>		DATE/TIME <i>9/2/00</i>	RELINQUISHED BY: (SIGNATURE) <i>Reth A. Mark</i>	DATE/TIME <i>9/3/00</i>	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY LAB: (SIGNATURE)
REMARKS				SAMPLE SHIPPED VIA <input type="checkbox"/> UPS <input type="checkbox"/> BUS <input type="checkbox"/> FEDERAL EXPRESS	
				AIR BUS BILL NUMBER	

FORM 340



E17442

REMARKS *Samples received coal and in good condition Blue ice coal and melted*

**SAMPLE SHIPPED VIA**  
☐ URS      ☐ BUS  
☒ **FEDERAL EXPRESS**

RECEIVED BY (SIGNATURE)  
 RECEIVED BY LAB: (SIGNATURE)  
 AIR BUS BILL NUMBER



PHOENIX-GOODYEAR AIRPORT  
MONITORING WELL SURVEYED 7-APR-88

WELL I.D.:	NORTHING	EASTING	ELEVATION	NOTES
16EMW-29A	21157.40	18837.70	971.8 971.1	UPPER HOSE FITTING LOWER HOSE FITTING

EXECUTION ON 12-NOV-87 AT 5:46 PM PAGE 1  
MONITORING WELLS - FIELD LOCATED NOV. 9 & 10, 1987

ELEVATIONS ARE ON THE TOP OF THE BOLT BY THE LOCK OR  
ON THE TOP OF THE CASING (FOR THE WELLS IN VAULTS)

118	16091.8006(N)	17516.1037(E)	958.1000(Z)	EMW-18-B
218	16087.6917(N)	17551.2007(E)	958.2000(Z)	EMW-18-UC
119	16832.9474(N)	16644.6993(E)	951.9000(Z)	EMW-19-B
219	16878.0783(N)	16620.9303(E)	952.4000(Z)	EMW-19-LC
319	16888.7174(N)	16593.9086(E)	952.4500(Z)	EMW-19-UC
120	18539.0417(N)	16606.3209(E)	959.8500(Z)	EMW-20-B1
220	18606.3213(N)	16652.9939(E)	960.7000(Z)	EMW-20-B2
320	18567.8302(N)	16639.3404(E)	960.5000(Z)	EMW-20-UC
420	18543.5984(N)	16638.6098(E)	960.4500(Z)	EMW-20-LC
121	19759.6287(N)	17489.2998(E)	967.7500(Z)	EMW-21-UC
122	20089.6427(N)	20396.4061(E)	964.3000(Z)	EMW-22-LC (VAULT)
123	11498.0755(N)	12636.6310(E)	933.5500(Z)	EMW-23-A
124	13656.3831(N)	12370.7072(E)	941.7000(Z)	EMW-24-A
125	11015.4908(N)	14294.9701(E)	933.9500(Z)	EMW-25-A
126	11702.8062(N)	16874.8697(E)	952.4000(Z)	EMW-26-A (VAULT)
127	19911.1946(N)	18673.6391(E)	963.5500(Z)	EMW-27-MFU (VAULT)
128	17710.8464(N)	17090.5425(E)	953.8500(Z)	EMW-28-LC
228	17661.7960(N)	17060.0568(E)	954.3000(Z)	EMW-28-UC
328	17613.4711(N)	17023.7686(E)	954.1500(Z)	EMW-28-B

Depth to Water (ft) Date  
 65.45 12/1  
 61.84 12/1 Very Oily  
 Pump Running  
 53.22 12/1  
 12/1 MP

6	
7	
8	
9	
10	
11	
12	
13	

each orange = 50 FT  
 each green = 100 FT  
 blue = 500 FT

color bands are every 5 FT  
 orange band on white

12/10/87 PGA water levels

Wellie Pump

EMW wells

TIME	READING	DEPTH	M.P.	APPROX ELEV. TO A.P.
27 MFU 0917	+2.10 + 280 -230	52.10	TOSP	-1.10'
21 UC ✓ 0930	-0.44 + 290 -230	59.56	TOSP	+1.20
20 B2 ✓	called out open lock	(Lat # 2402 "MASTER")		
20 UC ✓ 0948	-1.72 + 290 -230	58.28	TOSP	+1.20
20 LC ✓ 0954	-1.62 + 290 -230	58.38	TOSP	+1.30
28 LC ✓ 1008	+0.85 + 280 -230	50.85	TOSP	+1.34
28 UC ✓ 1015	+1.36 + 280 -230	51.36	TOSP	+1.31
28 B ✓ 1020	-1.44 + 280 -230	48.56	TOSP	+1.22
19 UC ✓ 1030	-0.24 + 280 -230	49.71	TOSP	+1.21
19 LC ✓ 1036	-0.23 + 280 -230	49.71	TOSP	+1.29
19 B ✓ 1041	-1.14 + 280 -230	48.86	TOSP	+1.27
18 UC ✓ 1050	-0.82 + 285 -230	54.18	TOSP	+1.20
18 B ✓ 1156	-0.88 + 285 -230	54.12	TOSP	+1.22
22 LC ✓ 0950	+0.84 + 285 -230	55.84	TOSP	-1.05
26 A ✓ 1015	-0.67 + 280 +230	49.33	TOSP	-1.52
25 A ✓ 1028	+1.60 + 265 -230	36.60	TOSP	+1.28
23 A ✓ 1045	-1.91 + 270 -230	38.09	TOSP	+1.34
24 A ✓ 1055	+2.18 + 270 -230	42.18	TOSP	+1.19

12/11/87

**CH2M HILL  
INDEX FORM  
FOR REM IV FILE CLOSEOUT**  
(Please print legibly or type.)

If it is more convenient, when indexing the file, complete those sections that will remain the same through the majority of the site file (nos. 1 through 8). Then photocopy this form onto colored paper (to make it more obvious in the file) and complete nos. 9 and 10 as necessary.

<b>1</b>	Team Member's Name JOHN LUCERO	Office Location RDD
File Originator	Team Member's Firm CH2M HILL <input checked="" type="checkbox"/> B&V <input type="checkbox"/> E&E <input type="checkbox"/> ICF <input type="checkbox"/> PRC <input type="checkbox"/> Subcontractor <input type="checkbox"/>	
<b>2</b>	Site Manager's Name JOHN LUCERO	Office Location RDD
Site Manager	Site Manager's Firm CH2M HILL <input checked="" type="checkbox"/> B&V <input type="checkbox"/> E&E <input type="checkbox"/> ICF <input type="checkbox"/> PRC <input type="checkbox"/>	
<b>3</b>	Work Assignment Number 030 - 9L19.0	<b>4</b> EPA Region IX
<b>5</b>	Master Project Number RDD63600	<b>6</b> Project Start Date (mon/yr) 04 / 1986
<b>7</b>	Site Name PHOENIX-GOODYEAR AIRPORT, AZ	
<b>8</b>	Site Location GOODYEAR, ARIZONA	
<b>9</b>	Description (limited to 100 characters/spaces) GROUNDWATER FILES - FOLDER 5 OF 68	
Section/ Subsection		
<b>10</b>	(These comments will not become part of the indexing information.)	
Comments	SOME DOCUMENTS REFERENCE REM/FIT CONTRACT NO.68-01-6692 WORK ASSIGNMENT NO. 073-9L19.0; MASTER PROJECT NO. W69219	
<b>FOR ZPMO USE</b>	(Oversize Documents)  <div style="text-align: center;">           1 OVERSIZE PAGE(S) WERE            REMOVED FROM THIS LOCATION            FOR 35MM FILMING.            REFERENCE: 05-6         </div>	



May 1, 1987

W60073. CH

Mr. Robert M. Huskisson  
Layne Western Co., Inc.  
9002 S. Hardy Drive  
Tempe, Arizona 85284

Dear Mr. Huskisson:

We are pleased to inform you that the U.S. EPA has authorized CH2M HILL to award Subcontract Agreement No. 146.00 to Layne Western Co., Inc., for well pumping services at the Phoenix-Goodyear site. This is a unit-price type subcontract with a not-to-exceed obligation of \$61,430 and a completion date 75 days following receipt of Notice to Proceed.

Enclosed are two copies of the agreement. Please review and sign both copies retaining one for your files and returning the other to my attention. Please complete Attachment B, Certification of Training, Medical, and Safety Requirements and the enclosed subcontractor status certification. In addition, in accordance with Article 40 of the General Conditions, please submit a Certificate of Insurance.

If you should have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Cindy Kenton".

Cindy Kenton  
Subcontracts Assistant

ckh/WDC01/018  
Enclosures: a/s  
cc: Peter Mock  
John Lucero



Engineers  
Planners  
Economists  
Scientists

May 1, 1987

W60073. CH

Mr. Joseph Newman  
Welenco, Inc.  
4817 District Boulevard  
Bakersfield, California 93313

Dear Mr. Newman:

We are pleased to inform you that the U.S. EPA has authorized CH2M HILL to award Subcontract Agreement No. 144.00 to Welenco, Inc., for geophysical logging and sampling services at the Phoenix-Goodyear site. This is a unit-price type subcontract with a not-to-exceed obligation of \$47,130 and a completion date 75 days following receipt of Notice to Proceed.

Enclosed are two copies of the agreement. Please review and sign both copies retaining one for your files and returning the other to my attention. Please complete Attachment B, Certification of Training, Medical, and Safety Requirements and the enclosed subcontractor status certification. In addition, in accordance with Article 40 of the General Conditions, please submit a Certificate of Insurance.

If you should have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Cindy Kenton".

Cindy Kenton  
Subcontracts Assistant

ckh/WDC01/017  
Enclosures: a/s  
cc: Peter Mock  
John Lucero

MEMORANDUM

To: Cindy Kenton/WDC  
John Lucero/RDD  
Fritz Carlson/RDD

From: Peter Mock/PHX

Date: March 27, 1987

Subject: Phoenix-Goodyear Airport RI/FS

Description of Bidding Process for :

- 1) Well Video Inspection
- 2) Well Pumping Test
- 3) Geophysical Logging and Depth-Specific Water Quality Sampling

Requests for Bids were sent out March 9, 1987 to:

PUMP CONTRACTORS

Gilbert Pump & Equipment Co.  
4532 E. Washington  
Phoenix, Arizona 85043  
602/273-1321  
800/558-5203

Mel Smith

Layne-Western Co.  
9002 S. Hardy Drive  
Tempe, Arizona 85284  
602/893-3664

Robert Huskisson

Weber Pump Inc.  
16852 S. Weber Drive  
Chandler, Arizona 85226  
602/961-1141

Fred Tregaskes

VIDEO SURVEY CONTRACTORS

Buck Weber & Associates  
16825 S. Weber Drive  
Chandler, Arizona 85226  
602/838-5880

Buck Weber

Well Scan Inc.  
3713 W. Cavalier Drive  
Phoenix, Arizona 85019  
602/841-0219

Al Katz

Well Surveys Company  
Box 805  
Hereford, Texas 79045  
806/364-0343  
806/364-4527

Tom Coneway

GEOPHYSICAL LOGGING CONTRACTORS

Welenco, Inc.  
625 S. Smith Suite #17  
Tempe, Arizona 85281  
602/968-7176

Gary Corbell

Southwest Surveys  
4200 Skyline Drive  
Farmington, New Mexico 87401  
505/325-8531

Don Pearson

Dresser Atlas  
490 Bell Terrace  
Bakersfield, California 93386  
805/323-7529

John Lawson

Bids were received on or before 3:00 PM on March 17, 1987 from: Layne Western and Weber Pump for the Well Pumping Test; Weber and Associates and Layne Western (Wellscan was subcontracted) for the Well Video Inspection; and Southwest Surveys and Welenco for Geophysical Logging and Water Quality.

The technology involved in the bidded work is complex and relatively new. As such, very few firms have experience in conducting the work. Also, engineering estimates for the work could not be made at the usual level of detail because there are no industry-standard costs for the work in this region and on the local types water wells. Cost estimates for EPA planning purposes were made from confidential statements from Potentially Responsible Parties at the Indian Bend Wash and Phoenix-Goodyear Airport Superfund sites. They would not release per item or service costs, but did tell us that the per well cost for all work was of the order of \$30,000 to \$40,000. The low bidders estimates for this project indicate a much lower cost per well \$17,000.



Bid TabulationWell Video Inspection

<u>Line Item Number</u>	<u>Layne Western (WellScan)</u>	<u>Weber</u>
1	\$ 60	\$ 500
2	450	2,100
3	4,445	3,500
4	450	1,500
5	1,500	1,500
6	2,800	2,000
7	0	750
8	4,000	3,500
TOTAL	\$ 13,705	\$ 15,350

Well Pumping Test

<u>Line Item Number</u>	<u>Layne Western</u>	<u>Weber</u>
1	\$ 2,500	\$ 4,000
2	6,000	3,000
3	2,800	5,600
4	13,650	21,000
5	19,600	28,000
6	7,280	12,880
7	450	1,500
8	1,500	1,500
9	3,900	3,000
10	0	750
11	3,750	3,500
TOTAL	\$ 61,430	\$ 84,730

Geophysical Logging and Water Quality Sampling

<u>Line Item Number</u>	<u>Welenco</u>	<u>Southwest Surveys</u>
1	\$ 400	\$ 1,650
2	2,400	9,990
3	13,300	23,100
4	7,280	12,550
5	0	3,000
6	21,000	48,300
7	0	300
8	750	1,000
9	2,000	2,000
10	0	7,500
11	0	4,000
TOTAL	\$ 45,330	\$113,300

The low bidder was chose for each of the three tasks. They are well qualified to do the work and have experience at this project site.

PHM2/206

PUMP CONTRACTORS

Gilbert Pump & Equipment Co.  
4532 E. Washington  
Phoenix, Arizona 85043  
602/273-1321  
800/558-5203

Layne-Western Co.  
9002 S. Hardy Drive  
Tempe, Arizona 85284  
602/893-3664

Robert Huskisson

Weber Pump Inc.  
16852 S. Weber Drive  
Chandler, Arizona 85226  
602/961-1141

Fred Tregaskes

VIDEO SURVEY CONTRACTORS

Buck Weber & Associates  
16825 S. Weber Drive  
Chandler, Arizona 85226  
602/838-5880

Buck Weber

Well Scan Inc.  
3713 W. Cavalier Drive  
Phoenix, Arizona 85019  
602/841-0219

Al Katz

Well Surveys Company  
Box 805  
Hereford, Texas 79045  
806/364-0343  
806/364-4527

Tom Coneway

GEOPHYSICAL LOGGING CONTRACTORS

Welenco, Inc.  
625 S. Smith Suite #17  
Tempe, Arizona 85281  
602/968-7176

Gary Corbell

Southwest Surveys  
4200 Skyline Drive  
Farmington, New Mexico 87401  
505/325-8531

Don Pearson

Dresser Atlas  
490 Bell Terrace  
Bakersfield, California 93386  
805/323-7529

John Lawson



March 9, 1987

W63600.FL

Welenco, Inc.  
625 S. Smith, Suite #17  
Tempe, Arizona 85281

Attention: Mr. Gary Corbell

Gentlemen:

Subject: Proposal for Geophysical Logging and  
Water Sampling at Phoenix Goodyear  
Airport Hazardous Waste Site

CH2M HILL has contracted with the EPA to investigate the Phoenix Goodyear hazardous waste site. Part of this work is to obtain data from existing wells. You are invited to submit a proposal for a subcontract to perform geophysical logging and water sampling of these wells. Enclosed is a set of contract documents for this work.

The subcontract requires others to be doing work on the wells in conjunction with this subcontract. We have enclosed copies of the other subcontract documents for well testing, and video surveying. These will provide information on the other work.

The proposals are due in our Phoenix office on March 17, 1987. If you have any questions, contact Mr. Peter Mock in our Phoenix office, 9830 South 51st Street, Suite A-130, Phoenix, Arizona 85044, phone 602/893-6155.

Sincerely,

*Patrick Roche*  
Patrick Roche  
Senior Civil Engineer

RD/CH/072  
Enclosures

cc: ✓ Mr. Peter Mock/CH2M HILL, Phoenix  
Mr. John Lucero/CH2M HILL, Denver



March 9, 1987

W63600.FL

Southwest Surveys  
4200 Skyline Drive  
Farmington, New Mexico 87401

Attention: Mr. Don Pearson

Gentlemen:

Subject: Proposal for Geophysical Logging and  
Water Sampling at Phoenix Goodyear  
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Sincerely,

*Patrick Roche /CH*

Patrick Roche  
Senior Civil Engineer

RD/CH/072  
Enclosures

cc: Mr. Peter Mock/CH2M HILL, Phoenix  
Mr. John Lucero/CH2M HILL, Denver



March 9, 1987

W63600.FL

Dresser Atlas  
490 Bell Terrace  
Bakersfield, California 93386

Attention: Mr. John Lawson

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Subject: Proposal for Geophysical Logging and  
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Sincerely,

*Patrick Roche/ch*  
Patrick Roche  
Senior Civil Engineer

RD/CH/072  
Enclosures

cc: Mr. Peter Mock/CH2M HILL, Phoenix  
Mr. John Lucero/CH2M HILL, Denver





March 9, 1987

W63600.FL

Gilbert Pump & Equipment Co.  
4532 E. Washington  
Phoenix, Arizona 85043

Gentlemen:

Subject: Proposal for Well Testing at Phoenix Goodyear  
Airport Hazardous Waste Site

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Sincerely,

*Patrick Roche* /CH/  
Patrick Roche  
Senior Civil Engineer

RD/CH/070  
Enclosures

cc: Mr. Peter Mock/CH2M HILL, Phoenix  
Mr. John Lucero/CH2M HILL, Denver



March 9, 1987

W63600.FL

Layne-Western Co.  
9002 S. Hardy Drive  
Tempe, Arizona 85284

Attention: Mr. Robert Huskisson

Gentlemen:

Subject: Proposal for Well Testing at Phoenix Goodyear  
Airport Hazardous Waste Site

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Sincerely,

*Patrick Roche*  
Patrick Roche  
Senior Civil Engineer

RD/CH/070  
Enclosures

cc: Mr. Peter Mock/CH2M HILL, Phoenix  
Mr. John Lucero/CH2M HILL, Denver



March 9, 1987

W63600.FL

Weber Pump, Inc.  
16852 S. Weber Drive  
Chandler, Arizona 85226

Attention: Mr. Fred Tregaskes

Gentlemen:

Subject: Proposal for Well Testing at Phoenix Goodyear  
Airport Hazardous Waste Site

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Sincerely,

*Patrick Roche/CH*  
Patrick Roche  
Senior Civil Engineer

RD/CH/070  
Enclosures

cc: Mr. Peter Mock/CH2M HILL, Phoenix  
Mr. John Lucero/CH2M HILL, Denver



March 9, 1987

W63600.FL

Buck Weber & Associates  
16825 S. Weber Drive  
Chandler, Arizona 85226

Attention: Mr. Buck Weber

Gentlemen:

Subject: Proposal for Video Surveying at Phoenix  
Goodyear Airport Hazardous Waste Site

CH2M HILL has contracted with the EPA to investigate the Phoenix Goodyear hazardous waste site. Part of this work is to obtain data from existing wells. You are invited to submit a proposal for a subcontract to perform video surveying of these wells. Enclosed is a set of contract documents for this work.

The subcontract requires others to be doing work on the wells in conjunction with this subcontract. We have enclosed copies of the other subcontract documents for well testing, and geophysical logging and water sampling. These will provide information on the other work.

The proposals are due in our Phoenix office on March 17, 1987. If you have any questions, contact Mr. Peter Mock in our Phoenix office, 9830 South 51st Street, Suite A-130, Phoenix, Arizona 85044, phone 602/893-6155.

Sincerely,

*Patrick Roche /ch*  
Patrick Roche  
Senior Civil Engineer

RD/CH/074  
Enclosures

cc: Mr. Peter Mock/CH2M HILL, Phoenix  
Mr. John Lucero/CH2M HILL, Denver



March 9, 1987

W63600.FL

Well Scan, Inc.  
3713 W. Cavalier Drive  
Phoenix, Arizona 85019

Attention: Mr. Al Katz

Gentlemen:

Subject: Proposal for Video Surveying at Phoenix  
Goodyear Airport Hazardous Waste Site

CH2M HILL has contracted with the EPA to investigate the Phoenix Goodyear hazardous waste site. Part of this work is to obtain data from existing wells. You are invited to submit a proposal for a subcontract to perform video surveying of these wells. Enclosed is a set of contract documents for this work.

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Sincerely,

*Patrick Roche/CH*  
Patrick Roche  
Senior Civil Engineer

RD/CH/074  
Enclosures

cc: Mr. Peter Mock/CH2M HILL, Phoenix  
Mr. John Lucero/CH2M HILL, Denver



March 9, 1987

W63600.FL

Well Surveys Company  
Box 805  
Hereford, Texas 79045

Attention: Mr. Tom Coneway

Gentlemen:

Subject: Proposal for Video Surveying at Phoenix  
Goodyear Airport Hazardous Waste Site

CH2M HILL has contracted with the EPA to investigate the Phoenix Goodyear hazardous waste site. Part of this work is to obtain data from existing wells. You are invited to submit a proposal for a subcontract to perform video surveying of these wells. Enclosed is a set of contract documents for this work.

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Sincerely,

*Patrick Roche/CH*  
Patrick Roche  
Senior Civil Engineer

RD/CH/074  
Enclosures

cc: Mr. Peter Mock/CH2M HILL, Phoenix  
Mr. John Lucero/CH2M HILL, Denver



March 13, 1987

## GEOPHYSICS

CH2M HILL SOUTHEAST, INC.  
9830 South 51st Street, Suite A-130  
P.O. Box 50129  
Phoenix, Arizona 85076

Attention: Mr. Peter Mock

Gentlemen:

Subject: Goodyear Airport Geophysical Logging and Water Sampling

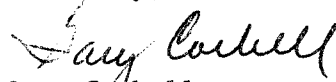
WELENCO is pleased to be considered by CH2M HILL for the above project and respectfully submits our bid which is enclosed.

There are a number of items we would draw to your attention which our bid covers; Namely,

1. Our bid price for the Geophysical Logging under "Static" conditions will include both Spinner Logs and Brine Injection Logs without addition charge.
2. Our Spinner Tool has been modified with a funnel which diverts downward flow into and past the impeller allowing for lower flow measurements.
3. During the Sampling Period, WELENCO would have 2- 3" Samplers, 1- 2 1/8" Sampler, and 1- 1 11/16" Sampler available.
4. WELENCO would utilize the following sterilization procedure if acceptable:
  - A. Wash with ion-free/organic-free water and TSP soap.
  - B. Rinse with ion-free/organic-free water.
  - C. Rinse with Isopropanol.
  - D. Rinse with ion-free/organic-free water.
5. An agreement which is enclosed must be signed both by CH2M HILL and WELENCO prior to running a Neutron source into any hole. There must be a separate agreement for each well.
6. Geophysical results will be presented not only in normal log form, but, also, in the Composite Broad Form.

Should WELENCO be awarded this contract, we look forward to working with CH2M HILL with anticipation.

Sincerely,

  
Gary Corbell

625 SOUTH SMITH ROAD, SUITE 17 • TEMPE • ARIZONA 85281 • (602) 968-7176



NOTE TO BIDDER: Use preferably BLACK ink for completing this Bid form.

**BID**

To: CH2M HILL SOUTHEAST, INC.  
Address: 9830 South 51st Street, Suite A-130  
Phoenix, Arizona 85044  
Project Title: Geophysical Logging and Depth-Specific  
Water Quality Sampling  
Bidder: WELENCO, INC.  
Address: 4817 District Blvd., Bakersfield, California 93313  
Date: March 13, 1987  
Bidder's person to contact for additional information on this Bid:  
Name: JOSEPH NEWMAN GARY CORBELL  
Telephone: 805-834-8100 602-968-7176

**BIDDER'S DECLARATION AND UNDERSTANDING**

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the EPA or the Contractor and that the Bid is made without any connection or collusion with any person submitting another Bid on the Subcontract.

The Bidder further declares that it has carefully examined the Subcontract Documents, that it has personally inspected the site, that it has satisfied itself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Subcontract Documents, and that this Bid is made according to the provisions and under the terms of the Subcontract Documents, which Subcontract Documents are hereby made a part of this Bid.

The Bidder further acknowledges that it has satisfied itself as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of

transportation, access to the site, disposal, handling and storage of materials, availability of labor, water, electric power, roads, and uncertainties of weather, river stages, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during the execution of the work and all other matters which can in any way affect the work or the cost thereof under the Subcontract.

The Bidder further acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials to be encountered from its inspection of the site and from reviewing any available records of exploratory work furnished by the Contractor, the EPA, other sources, or included in these Subcontract Documents; and that failure by the Subcontractor to acquaint itself with the physical conditions of the site and all the available information will not relieve it from responsibility for properly estimating the difficulty or cost of successfully performing the work.

The Bidder warrants, as a result of its examination and investigation of all the aforesaid data, that it can perform the work in a good and workmanlike manner and to the satisfaction of the Contractor and EPA. The Bidder understands and agrees that neither the Contractor nor the EPA assume any responsibility for any representation made by any of their officers or agents during or prior to the execution of the Subcontract, unless (1) such representations are expressly stated in the Subcontract, and (2) the Subcontract expressly provides that the responsibility therefor is assumed by the Contractor.

The Bidder warrants that no person or selling agency has been employed or retained to solicit or secure this Subcontract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee except bona fide employees or bona fide established commercial or selling agencies maintained by the Bidder for the purpose of securing business. For breach or violation of this assurance, the Contractor shall have the right to annul the Subcontract without liability or, at its discretion, to deduct from the Subcontract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

#### SUBCONTRACT EXECUTION

The Bidder agrees that if this Bid is accepted, it will, within 10 days, not including Sundays and legal holidays, after notice of award, sign the Subcontract in the form annexed hereto, and will, to the extent of its Bid, furnish all labor, machinery, tools, apparatus, and other means to do the work and furnish all the materials necessary to complete all work as specified or indicated in the Subcontract Documents.

### CERTIFICATES OF INSURANCE

The Bidder further agrees to furnish the Contractor, before commencing the work under this Subcontract, the certificates of insurance as specified in these Subcontract Documents.

### START OF CONSTRUCTION AND SUBCONTRACT COMPLETION TIME

The Bidder further agrees to begin work within 5 calendar days after receipt of Notice to Proceed and to complete work, in all respects, within 75 calendar days after the Notice to Proceed.

### LIQUIDATED DAMAGES

In the event the Bidder is awarded the Subcontract work and shall fail to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Subcontract Documents, liquidated damages shall be paid to the Contractor at the rate of \$200 per day for all work awarded under the Subcontract until the work shall have been satisfactorily completed as provided by the Subcontract Documents. Sundays and legal holidays shall be excluded in determining days in default.

### ADDENDA

The Bidder hereby acknowledges that it has received Addenda No's.

(Bidder shall insert 'No. of each Addendum received') and agrees that all addenda issued are hereby made part of the Subcontract Documents, and the Bidder further agrees that its Bid(s) includes all impacts resulting from said addenda.

### SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes, where applicable, are included in the stated bid prices for the work.

### UNIT PRICE AND LUMP SUM BID FORM

The Bidder shall complete the following Bid Proposal Form. Include costs for all category items:

## BID SCHEDULE

ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
1.	Mobilize and clean up, first site at \$ <u>400.00</u> <u>Four Hundred Dollars Only</u> Dollars	\$ <u>\$400.00</u>
2.	Mobilize and clean up, 6 additional sites at \$ <u>400.00</u> per site <u>Four Hundred Dollars Only</u> Dollars	\$ <u>\$2400.00</u>
3.	Run neutron, caliper, temperature, fluid conductivity, and spinner flowmeter or brine injection logs without pump in well, 7 sites at \$ <u>1900.00</u> each <u>Nineteen Hundred Dollars Only</u> Dollars	\$ <u>\$13,300.00</u>
4.	Run temperature, fluid conductivity, and spinner flowmeter logs in wells while pumping, 7 sites at \$ <u>1040.00</u> each <u>One Thousand Forty Dollars Only</u> Dollars	\$ <u>\$7,280.00</u>
5.	Laboratory testing of sampling tool, at the lump sum price of Dollars	\$ <u>-0-</u>
6.	Obtain water samples at depths selected by the Engineer under both pumping and nonpumping conditions, 84 samples at \$ <u>250.00</u> each <u>Two Hundred Fifty Dollars Only</u> Dollars	\$ <u>\$21,000.00</u>

ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
7.	Level C protection equipment, 3 hours at \$ _____ per hour	\$ -0-
	_____ Dollars	
8.	Decontamination of personnel and equipment, 10 hours at \$ 75.00 per hour	\$ 750.00
	Seventy-Five Dollars Only	
	_____ Dollars	
9.	Standby time, 40 hours at \$ 50.00 per hour	\$ 2000.00
	Fifty Dollars Only	
	_____ Dollars	
10.	Per diem, 1 crew, 75 days at \$ 0 per day	\$ -0-
	_____ Dollars	
11.	Haulage of wastes, 5 drums at \$ 0 per drum	\$ -0-
	_____ Dollars	
TOTAL PRICE BID		\$ 45,330.00

*should be  
\$ 47,130*

REQUIRED INFORMATION ON BIDDER'S EQUIPMENT

1. Geophysical Logging Equipment

Own X, or Subcontractor \_\_\_\_\_?

Subcontractor (if applicable) \_\_\_\_\_

Manufacturer and Model Number of Major Components \_\_\_\_\_

Gearhart Industries and/or its subsidiary - Mineral Logging

Recorder, Number of Channels 4

Logging Line, Diameter, and Number of Conductors \_\_\_\_\_

3/16" diameter, 4 conductor

Line Speedometer (yes/no) Yes

Line Pull Indicator (yes/no) Yes

Neutron Logging Tool

Source Type AmBe 241

Source Size 3 Curie

Detector Type He<sub>3</sub>

Source to Detector Distance 13" to 17"

Caliper Tool, Maximum Range 38"

Temperature Tool

Maximum Range 0 degrees C to 200 degrees C

Resolution (gross counts/degree C, \_\_\_\_\_, or ohms/  
degrees C \_\_\_\_\_) 20cps/<sup>o</sup>C and 10cps/<sup>o</sup>F

Spinner Flowmeter Tool

Impeller Diameter 2 3/8"

Impeller Housing Diameter Static -10" diameter funnel/Pumping 3"

Impeller Material Delron

Rotation Sensing Element (magnetic reed \_\_\_\_\_, Hall  
effect \_\_\_\_\_, or other X) (Specify INDUCTION)

Minimum flow velocity sensed, \_\_\_\_\_ feet/min.  
(through impeller housing) 3 feet/min with funnel (static)  
7 feet/min without funnel (Pumping)  
Method of Centralizing Spring Steel Bow Centralizers

Centralizer Range(s) 2 to 13"

Fluid Sampler (motorized)

Sampler Chamber Volume 2 Liters/1 Liter

Sample Chamber Material STAINLESS STEEL

Composition of Sealing Element(s) Viton

Fluid Sampler (bailer type)

Manufacturer and Model Number Same as above- Welenco has  
2- 3" Sampler (2 liters), 1 2 1/8" Sampler (2 Liters), and  
1 - 1 11/16" Sampler (1 Liter)

Type Motorized

Material of Construction Stainless Steel

Volume of Sample 2 Liters/1 Liter

## 2. Brine Injector

Chamber Volume 380 CC

Mechanism for Injection Motorized

Composition of Chamber Stainless Steel

## SUBCONTRACTORS

The Bidder further proposes that the following subcontracting firms or businesses be awarded subcontracts for the following portions of the work in the event that the Bidder is awarded the Contract:

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_



\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

The Bidder further agrees that if his Bid is one of the three  
apparent low Bidders at time of Bid opening, he shall submit, within  
5 days after the Bid opening, a listing of subcontracting firms or  
businesses that will be awarded subcontracts for work in excess of  
\$10,000.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

SURETY

If the Bidder is awarded a Construction Contract on this Proposal,  
the Surety who provides the Performance Bond will be

\_\_\_\_\_ whose address is

\_\_\_\_\_  
Street City State Zip

BIDDER

The name of the Bidder submitting this Proposal is \_\_\_\_\_

\_\_\_\_\_ doing business at

\_\_\_\_\_  
Street City State Zip

which is the address to which all communications concerned with this  
Proposal and with the Contract shall be sent.

The names of the principal officers of the corporation submitting  
this Proposal, or of the partnership, or of all persons interested  
in this Proposal as principals are as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this \_\_\_\_\_  
day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this  
instrument to be executed and its seal affixed by it duly authorized  
officers this

13th day of March, 1987.

(SEAL)

WELENCO, INC

\_\_\_\_\_  
Name of Corporation

By

Joseph F. Newman  
JOSEPH NEWMAN

Title

\_\_\_\_\_  
President

Attest

Gary Connel  
Secretary

\* \* \* \* \*

**ATTACHMENT B**  
**CERTIFICATION OF TRAINING, MEDICAL, AND SAFETY REQUIREMENTS**

The Subcontractor acknowledges that it has read, understands and has made available to its employees copies of 29 CFR 1910.134, EPA Executive Order 1440.2, and the provisions of American National Standards Institute Standard Z88.2 for respiratory protection. The Subcontractor hereby certifies that the Subcontractor and its employees who will be engaged in working on or near the Phoenix-Goodyear Airport project site meet all of the requirements of the above documents. These requirements include, but are not limited to, the following items:

- A. The Subcontractor's employees have been examined by a licensed physician within the last 12 months and have been determined to be physically able to perform the work, and to use the respiratory and other protective equipment required for this assignment;
- B. The Subcontractor's employees have been trained in the proper use of respiratory and other protective equipment and their limitations;
- C. The employees have received training for working safely in environments with known and unknown hazards;
- D. The Subcontractor has established and is maintaining a respiratory protection program that complies with the provisions of 29 CFR 1910.134; and
- E. The Subcontractor maintains appropriate surveillance of the work area conditions and degree of employee exposure to the hazardous materials present.

The Subcontractor further certifies that only respirators approved or accepted by NIOSH/MSHA for the conditions present at the site will be used by the Subcontractor's employees; that each of the Subcontractor's employees has been properly fitted to the respirators provided by the Subcontractor, including a test of the face-to-face piece seal; that the Subcontractor has provided its employees with written procedures covering safe use of respiratory and other protective equipment in dangerous atmospheres; and that the Subcontractor has established a program for inspection, maintenance, and care of the respiratory and other protective equipment.

Joseph L. Newman  
Signature of Subcontractor

PRESIDENT

Title  
March 13, 1987

Date

\* \* \* \* \*

RADIOACTIVE AGREEMENT FOR USE OF SEALED SOURCES

DATE.....

COMPANY.....

WELL NUMBER.....

LOCATION.....

LICENSEE.....WELENCO, INC.  
625 S. Smith Road, Suite 17  
Tempe, Arizona 85281

LICENSE NUMBER.....7-300

DATE OF USE.....

SEALED SOURCE USED....

The above Company agrees if the above source becomes lodged in the above well and cannot be retrieved that:

1. A reasonable effort will be made to recover the source;
2. A person may not attempt to recover a sealed source in a manner which, in the opinion of the licensee, could rupture the source;
3. If any surface equipment or personnel are contaminated with radioactive materials, they must be decontaminated before release from the site;
4. If the environment is contaminated with radioactive material, it must be decontaminated prior to release of the site for unrestricted use; and
5. At least one monitor well will be drilled in the down-flow direction to provide a means for testing for degradation of the source located in an aquifer; and
6. All conditions as shown in the terms and conditions statement attached to this agreement.

\_\_\_\_\_  
For Welenco, Inc.\_\_\_\_\_  
Date\_\_\_\_\_  
NAME\_\_\_\_\_  
COMPANY\_\_\_\_\_  
SIGNATURE\_\_\_\_\_  
DATE

NOTE TO BIDDER: Use preferably BLACK ink for completing this Bid form.

**BID**

To: CH2M HILL SOUTHEAST, INC.  
Address: 9830 South 51st Street, Suite A-130  
Phoenix, Arizona 85044  
Project Title: Geophysical Logging and Depth-Specific  
Water Quality Sampling

Bidder: Southwest Surveys  
Address: 4200 Skyline Dr. Farmington, N.M. 87401  
Date: 3-13-87

Bidder's person to contact for additional information on this Bid:

Name: D.E. Pearson  
Telephone: 505-325-8531

**BIDDER'S DECLARATION AND UNDERSTANDING**

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the EPA or the Contractor and that the Bid is made without any connection or collusion with any person submitting another Bid on the Subcontract.

The Bidder further declares that it has carefully examined the Subcontract Documents, that it has personally inspected the site, that it has satisfied itself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Subcontract Documents, and that this Bid is made according to the provisions and under the terms of the Subcontract Documents, which Subcontract Documents are hereby made a part of this Bid.

The Bidder further acknowledges that it has satisfied itself as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of

transportation, access to the site, disposal, handling and storage of materials, availability of labor, water, electric power, roads, and uncertainties of weather, river stages, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during the execution of the work and all other matters which can in any way affect the work or the cost thereof under the Subcontract.

The Bidder further acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials to be encountered from its inspection of the site and from reviewing any available records of exploratory work furnished by the Contractor, the EPA, other sources, or included in these Subcontract Documents; and that failure by the Subcontractor to acquaint itself with the physical conditions of the site and all the available information will not relieve it from responsibility for properly estimating the difficulty or cost of successfully performing the work.

The Bidder warrants, as a result of its examination and investigation of all the aforesaid data, that it can perform the work in a good and workmanlike manner and to the satisfaction of the Contractor and EPA. The Bidder understands and agrees that neither the Contractor nor the EPA assume any responsibility for any representation made by any of their officers or agents during or prior to the execution of the Subcontract, unless (1) such representations are expressly stated in the Subcontract, and (2) the Subcontract expressly provides that the responsibility therefor is assumed by the Contractor.

The Bidder warrants that no person or selling agency has been employed or retained to solicit or secure this Subcontract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee except bona fide employees or bona fide established commercial or selling agencies maintained by the Bidder for the purpose of securing business. For breach or violation of this assurance, the Contractor shall have the right to annul the Subcontract without liability or, at its discretion, to deduct from the Subcontract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

#### SUBCONTRACT EXECUTION

The Bidder agrees that if this Bid is accepted, it will, within 10 days, not including Sundays and legal holidays, after notice of award, sign the Subcontract in the form annexed hereto, and will, to the extent of its Bid, furnish all labor, machinery, tools, apparatus, and other means to do the work and furnish all the materials necessary to complete all work as specified or indicated in the Subcontract Documents.

### CERTIFICATES OF INSURANCE

The Bidder further agrees to furnish the Contractor, before commencing the work under this Subcontract, the certificates of insurance as specified in these Subcontract Documents.

### START OF CONSTRUCTION AND SUBCONTRACT COMPLETION TIME

The Bidder further agrees to begin work within 5 calendar days after receipt of Notice to Proceed and to complete work, in all respects, within 75 calendar days after the Notice to Proceed.

### LIQUIDATED DAMAGES

In the event the Bidder is awarded the Subcontract work and shall fail to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Subcontract Documents, liquidated damages shall be paid to the Contractor at the rate of \$200 per day for all work awarded under the Subcontract until the work shall have been satisfactorily completed as provided by the Subcontract Documents. Sundays and legal holidays shall be excluded in determining days in default.

### ADDENDA

The Bidder hereby acknowledges that it has received Addenda No's.

(Bidder shall insert 'No. of each Addendum received') and agrees that all addenda issued are hereby made part of the Subcontract Documents, and the Bidder further agrees that its Bid(s) includes all impacts resulting from said addenda.

### SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes, where applicable, are included in the stated bid prices for the work.

### UNIT PRICE AND LUMP SUM BID FORM

The Bidder shall complete the following Bid Proposal Form. Include costs for all category items:



## BID SCHEDULE

ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
1.	Mobilize and clean up, first site at \$ <u>1650.<sup>00</sup></u> <u>One thousand Six Hundred Fifty</u> Dollars	\$ <u>1650.<sup>00</sup></u>
2.	Mobilize and clean up, 6 additional sites at \$ <u>1650.<sup>00</sup></u> per site	\$ <u>9900.<sup>00</sup></u>
3.	<u>Nine thousand Nine Hundred</u> Dollars Run neutron, caliper, temperature, fluid conductivity, and spinner flowmeter or brine injection logs without pump in well, 7 sites at \$ <u>330.<sup>00</sup></u> each	\$ <u>23100.<sup>00</sup></u>
4.	<u>Twentythree thousand one Hundred</u> Dollars Run temperature, fluid conductivity, and spinner flowmeter logs in wells while pumping, 7 sites at \$ <u>1750.<sup>00</sup></u> each	\$ <u>12550.<sup>00</sup></u>
5.	<u>Twelve thousand Five Hundred Fifty</u> Dollars Laboratory testing of sampling tool, at the lump sum price of	\$ <u>3000.<sup>00</sup></u>
6.	<u>Three thousand</u> Dollars Obtain water samples at depths selected by the Engineer under both pumping and nonpumping conditions, 84 samples at \$ <u>575.<sup>00</sup></u> each	\$ <u>48300.<sup>00</sup></u>
	<u>Forty Eight thousand three Hundred</u> Dollars	

ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
7.	Level C protection equipment, 3 hours at \$ <u>100.<sup>00</sup></u> per hour	\$ <u>300.<sup>00</sup></u>
	<u>Three Hundred</u> Dollars	
8.	Decontamination of personnel and equipment, 10 hours at \$ <u>100.<sup>00</sup></u> per hour	\$ <u>1000.<sup>00</sup></u>
	<u>One thousand</u> Dollars	
9.	Standby time, 40 hours at \$ <u>50.<sup>00</sup></u> per hour	\$ <u>2000.<sup>00</sup></u>
	<u>Two thousand</u> Dollars	
10.	Per diem, 1 crew, 75 days at \$ <u>100.<sup>00</sup></u> per day	\$ <u>7500.<sup>00</sup></u>
	<u>Seventy Five Hundred</u> Dollars	
11.	Haulage of wastes, 5 drums at \$ <u>800</u> per drum	\$ <u>4000.<sup>00</sup></u>
	<u>Four thousand</u> Dollars	
	TOTAL PRICE BID	\$ <u>113300.<sup>00</sup></u>

REQUIRED INFORMATION ON BIDDER'S EQUIPMENT

1. Geophysical Logging Equipment

Own ☒, or Subcontractor \_\_\_\_\_?

Subcontractor (if applicable) \_\_\_\_\_

Manufacturer and Model Number of Major Components \_\_\_\_\_

Gearhart wideo 3500 unit or Compprobe 3000 unit

Recorder, Number of Channels Gearhart 4 channel

Logging Line, Diameter, and Number of Conductors \_\_\_\_\_

Vector - 3/16" - 4 conductor

Line Speedometer (yes/no) yes

Line Pull Indicator (yes/no) yes

Neutron Logging Tool

Source Type Am Be 241

Source Size 3 cu. or 1 Cu

Detector Type Gm Gm

Source to Detector Distance 13"

Caliper Tool, Maximum Range 36"

Temperature Tool

Maximum Range 0 degrees C to 120 degrees C

Resolution (gross counts/degree C, 36, or ohms/  
degrees C \_\_\_\_\_)

Spinner Flowmeter Tool

Impeller Diameter 1 3/8" to 4 1/4"

Impeller Housing Diameter 1 1/2" - 3 3/4"

Impeller Material Steel

Rotation Sensing Element (magnetic reed ☒, Hall  
effect \_\_\_\_\_, or other \_\_\_\_\_) (Specify \_\_\_\_\_)

Minimum flow velocity sensed, 20 feet/min.  
(through impeller housing)

Method of Centralizing Bow Spring

Centralizer Range(s) 2" to 12"

Fluid Sampler (motorized)

Sampler Chamber Volume 1.417 liter

Sample Chamber Material Stainless Steel

Composition of Sealing Element(s) rubber O ring

Fluid Sampler (bailer type)

Manufacturer and Model Number Modern Industrial  
Plastics Model GRW-300 or 350

Type Single or Double Ball

Material of Construction Teflon

Volume of Sample 1000 m.l.

## 2. Brine Injector

Chamber Volume 24 c.c.

Mechanism for Injection Surface control piston

Composition of Chamber Steel

## SUBCONTRACTORS

The Bidder further proposes that the following subcontracting firms or businesses be awarded subcontracts for the following portions of the work in the event that the Bidder is awarded the Contract:

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

The Bidder further agrees that if his Bid is one of the three  
apparent low Bidders at time of Bid opening, he shall submit, within  
5 days after the Bid opening, a listing of subcontracting firms or  
businesses that will be awarded subcontracts for work in excess of  
\$10,000.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

SURETY

If the Bidder is awarded a Construction Contract on this Proposal, the Surety who provides the Performance Bond will be

Fidelity & Deposit Co. of Maryland whose address is  
6300 So. Syracuse Way-Suite 470- Englewood, Colorado 80111  
Street City State Zip

BIDDER

The name of the Bidder submitting this Proposal is \_\_\_\_\_

Southwest Surveys doing business at  
4200 Skyline Drive - Farmington New Mexico 87401  
Street City State Zip

which is the address to which all communications concerned with this Proposal and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Proposal, or of the partnership, or of all persons interested in this Proposal as principals are as follows:

D. E. Pearson  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this 13<sup>th</sup>  
day of March, 1987.

D.E. Pearson  
Signature of Bidder

owner  
Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this  
instrument to be executed and its seal affixed by it duly authorized  
officers this

\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

(SEAL)

\_\_\_\_\_  
Name of Corporation

By \_\_\_\_\_

Title \_\_\_\_\_

Attest \_\_\_\_\_

Secretary

\* \* \* \* \*



DRESSER INDUSTRIES, INC. 490 WEST BELLE TERRACE, P.O. BOX 4158, BAKERSFIELD, CALIFORNIA 93307

March 11, 1987

Mr. Peter Mock  
CH2M Hill Southeast, Inc.  
9830 South 51st Street, Suite A-130  
Phoenix, Arizona 85044

Dear Mr. Mock,

Unfortunately we are unable to bid on your wells located at the Goodyear Hazardous Waste Site. Although we do have tools and equipment that are similar to the tools requested; they are primarily geared to the oil industrie's needs. Enclosed is a service catalog you may find useful for other work. Thank you for your time.

Sincerely,

A handwritten signature in black ink, appearing to read "Lawson". The signature is written in a cursive, flowing style.

John C. Lawson  
Operations Manager



# Weber Pump, Inc.

---

P.O. Box 26729 • Tempe, Arizona 85282 • (602) 961-1141

March 17, 1987

CH2M Hill, Inc.  
9830 S. 51st Ave.  
Suite A-130  
Phoenix, AZ 85044

Attention: Peter Mock

Re: Well Test Pumping at Phoenix - Goodyear  
Airport Hazardous Waste Site

Dear Ron:

Thank you for your request for proposal on Well Test Pumping at the Phoenix Goodyear Airport. Enclosed are the documents for the proposal.

I see no major problems with any of the sites. At Phoenix-Goodyear Airport Well No. 3 however, we will have to remove and reinstall the pump house on a time and materials basis in addition to the base contract. Disposal of water will be by sewer on Goodyear Wells No. 1 and 5; by ditches or canals on RID D 5/8W-3½N, E. Phillips and American Continental Corp. On Phoenix-Goodyear Airport Wells No. 2 and 3, we will have to work out an adequate disposal area. Our quotation is based upon a maximum of 50 feet of discharge piping.

The specific capacity tests on owner's pump quotation is based upon utilizing only equipment on-site. There are no allowances for measuring water levels or capacities. If you require adequate flow measurements, we will have to negotiate the cost and how we will dispose of the water. Four of the wells have flowmeters; however, we do not know if they are operational and/or accurate. We also do not know if a sounder will work or if airlines are accurate.

A member of...

**The Weber Group**  
RESOURCE MANAGERS

CH2M Hill, Inc.  
March 17, 1987  
Page 2 of 2

Weber Pump presently has all the equipment required to do the test pumping. We are currently working on another project which is similiar in nature. Schedules will have to be worked out with you if we enter into a contract.

All existing pumps will be re-installed as is. If we notice problems with the pump, we will notify you and the owner can be informed. We cannot be responsible for failure if equipment is in questionable condition.

As we discussed, we are expecting only low levels of contamination. There are allowances in the contract for protective equipment, but if Level C is required, we will need to work out details of handling this problem.

Please contact me if you have any questions.

Sincerely,



Fred Tregaskes  
Vice President

Enc.

FT/chc

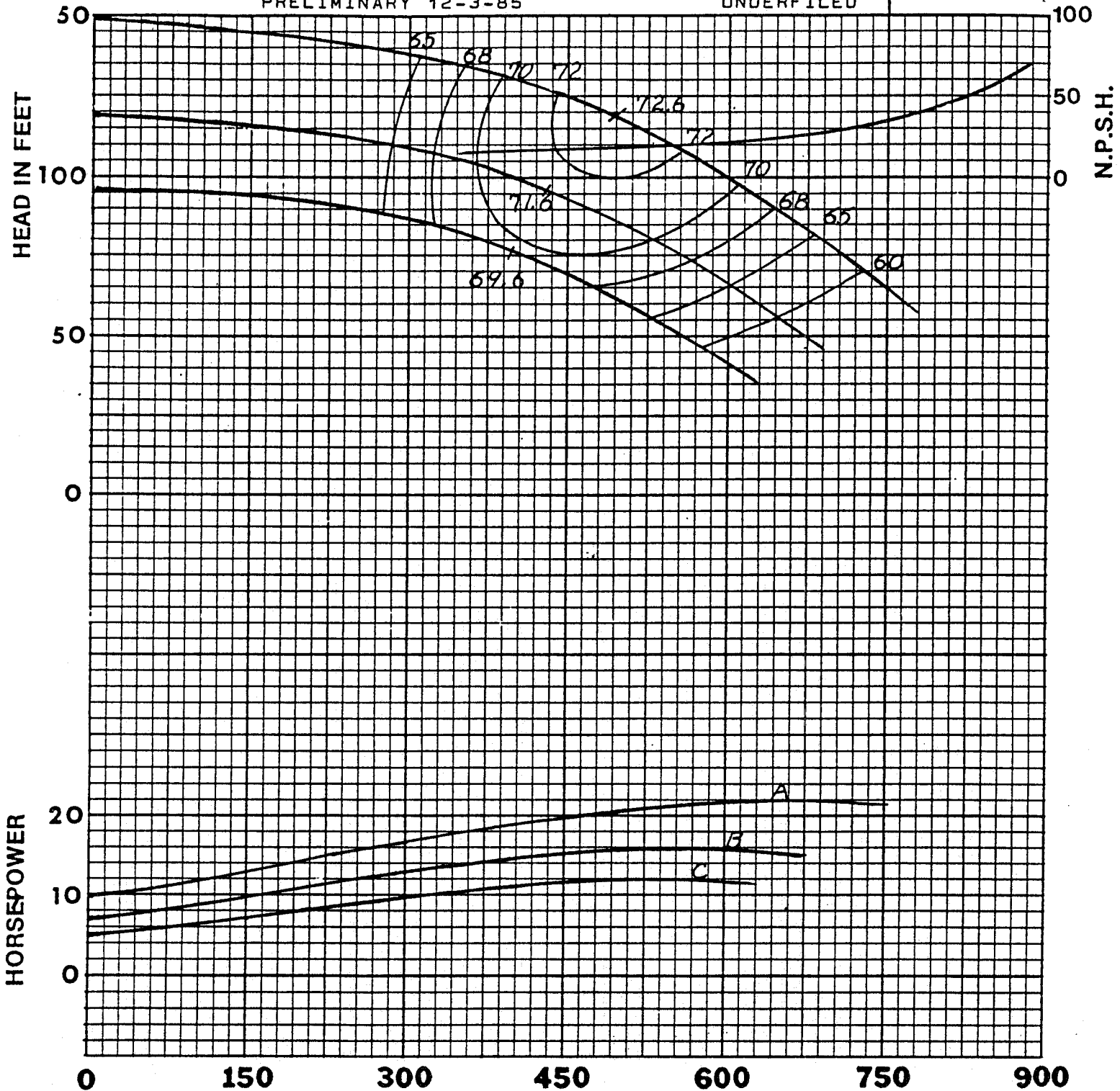
Low CAPACITY

**Performance Curves**

PRELIMINARY 12-3-85

UNDERFILED

3520 R.P.M.

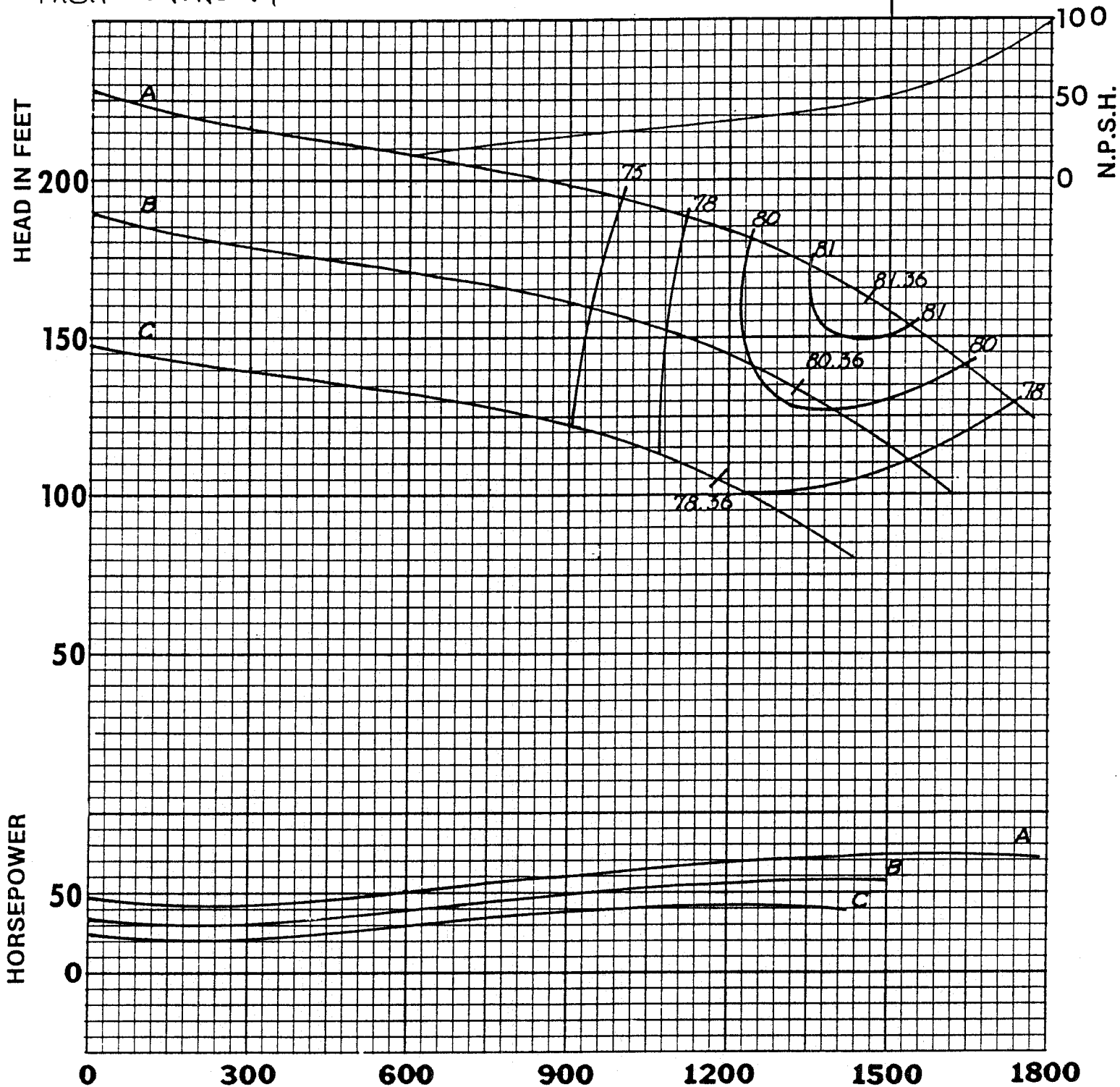


**CAPACITY IN U.S. G.P.M.**

Impeller - Bronze		Bowl Length 1st Stage	24
Bowl - Cast Iron/Enamel		Bowl Length Additional Stage	7.125
Bowl Bearings -	BRONZE	Impeller - Weight	5
Bowl Shaft -	S. S.	Impeller Shaft Diameter	1.250
Thrust Factor	2.9	Impeller End Lateral	1
Bowl Wt. 1st Stage (lbs.)	130	Column Pipe Size	4-5-6
Bowl Wt. Additional Stage (lbs.)	40	Suction Pipe Size	4-5-6

HIGH CAPACITY

**Performance Curves**



CAPACITY IN U.S. G.P.M.			
Impeller - Bronze		Bowl Length 1st Stage	28.5
Bowl - Cast Iron/Enamel		Bowl Length Additional Stage	8.625
Bowl Bearings -	BRASS	Impeller - Weight	8.6
Bowl Shaft -	S. S.	Impeller Shaft Diameter	1.5
Thrust Factor	5.30	Impeller End Lateral	.625
Bowl Wt. 1st Stage (lbs.)	175	Column Pipe Size	6-8
Bowl Wt. Additional Stage (lbs.)	60	Suction Pipe Size	6

NOTE TO BIDDER: Use preferably BLACK ink for completing this Bid form.

**BID**

To: CH2M HILL SOUTHEAST, INC.  
Address: 9830 South 51st Street, Suite A-130  
Phoenix, Arizona 85044  
Project Title: Well Pumping Test  
Bidder: WEBER PUMP INC.  
Address: P.O. Box 26729 TEMPE, AZ 85282  
Date: 3-17-87  
Bidder's person to contact for additional information on this Bid:  
Name: FRED TREGASKES  
Telephone: (602) 961-1141

**BIDDER'S DECLARATION AND UNDERSTANDING**

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the EPA or the Contractor and that the Bid is made without any connection or collusion with any person submitting another Bid on the Subcontract.

The Bidder further declares that it has carefully examined the Subcontract Documents, that it has personally inspected the site, that it has satisfied itself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Subcontract Documents, and that this Bid is made according to the provisions and under the terms of the Subcontract Documents, which Subcontract Documents are hereby made a part of this Bid.

The Bidder further acknowledges that it has satisfied itself as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, access to the site, disposal, handling and storage of materials, availability of labor, water, electric power, roads,

and uncertainties of weather, river stages, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during the execution of the work and all other matters which can in any way affect the work or the cost thereof under the Subcontract.

The Bidder further acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials to be encountered from its inspection of the site and from reviewing any available records of exploratory work furnished by the Contractor, the EPA, other sources, or included in these Subcontract Documents; and that failure by the Subcontractor to acquaint itself with the physical conditions of the site and all the available information will not relieve it from responsibility for properly estimating the difficulty or cost of successfully performing the work.

The Bidder warrants, as a result of its examination and investigation of all the aforesaid data, that it can perform the work in a good and workmanlike manner and to the satisfaction of the Contractor and EPA. The Bidder understands and agrees that neither the Contractor nor the EPA assume any responsibility for any representation made by any of their officers or agents during or prior to the execution of the Subcontract, unless (1) such representations are expressly stated in the Subcontract, and (2) the Subcontract expressly provides that the responsibility therefor is assumed by the Contractor.

The Bidder warrants that no person or selling agency has been employed or retained to solicit or secure this Subcontract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee except bona fide employees or bona fide established commercial or selling agencies maintained by the Bidder for the purpose of securing business. For breach or violation of this assurance, the Contractor shall have the right to annul the Subcontract without liability or, at its discretion, to deduct from the Subcontract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

#### SUBCONTRACT EXECUTION

The Bidder agrees that if this Bid is accepted, it will, within 10 days, not including Sundays and legal holidays, after notice of award, sign the Subcontract in the form annexed hereto, and will, to the extent of its Bid, furnish all labor, machinery, tools, apparatus, and other means to do the work and furnish all the materials necessary to complete all work as specified or indicated in the Subcontract Documents.

### CERTIFICATES OF INSURANCE

The Bidder further agrees to furnish the Contractor, before commencing the work under this Subcontract, the certificates of insurance as specified in these Subcontract Documents.

### START OF CONSTRUCTION AND SUBCONTRACT COMPLETION TIME

The Bidder further agrees to begin work within 5 calendar days after receipt of Notice to Proceed and to complete work, in all respects, within 75 calendar days after the Notice to Proceed.

### LIQUIDATED DAMAGES

In the event the Bidder is awarded the Subcontract work and shall fail to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Subcontract Documents, liquidated damages shall be paid to the Contractor at the rate of \$200 per day for all work awarded under the Subcontract until the work shall have been satisfactorily completed as provided by the Subcontract Documents. Sundays and legal holidays shall be excluded in determining days in default.

### ADDENDA

The Bidder hereby acknowledges that it has received Addenda No's.

NONE,  
(Bidder shall insert No. of each Addendum received) and agrees that all addenda issued are hereby made part of the Subcontract Documents, and the Bidder further agrees that its Bid(s) includes all impacts resulting from said addenda.

### SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes, where applicable, are included in the stated bid prices for the work.

### UNIT PRICE AND LUMP SUM BID FORM

The Bidder shall complete the following Bid Proposal Form. Include costs for all category items:

## BID SCHEDULE

ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
1.	Mobilize and clean up, first site at \$ <u>4000<sup>00</sup></u> <u>FOUR THOUSAND AND 00/100</u> Dollars	\$ <u>4000<sup>00</sup></u>
2.	Mobilize and clean up, six additional sites at \$ <u>500<sup>00</sup></u> per site <u>THREE THOUSAND AND 00/100</u> Dollars	\$ <u>3000<sup>00</sup></u>
3.	Conduct specific capacity pumping tests using Owner's pump (twice per well), 14 tests at \$ <u>400<sup>00</sup></u> each <u>FIVE THOUSAND SIX HUNDRED AND</u> <u>00/100</u> Dollars	\$ <u>5600<sup>00</sup></u>
4.	Remove and reset Owner's pumps, 7 sites at \$ <u>3000<sup>00</sup></u> each <u>TWENTY-ONE THOUSAND AND 00/100</u> Dollars	\$ <u>21000<sup>00</sup></u>
5.	Furnish, install, and remove test pump, access pipe and appurtenances for logging while pumping, 7 sites at \$ <u>4000<sup>00</sup></u> each <u>TWENTY-EIGHT THOUSAND AND 00/100</u> Dollars	\$ <u>28000<sup>00</sup></u>
6.	Hourly operation of test pump during logging, 112 hours at \$ <u>115<sup>00</sup></u> per hour <u>TWELVE THOUSAND EIGHT HUNDRED</u> <u>EIGHTY AND 00/100</u> Dollars	\$ <u>12880<sup>00</sup></u>



ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
7.	Level C protection equipment, 3 hours at \$ <u>500<sup>00</sup></u> per hour  <u>ONE THOUSAND FIVE HUNDRED AND</u> <u>00/100</u> Dollars	\$ <u>1500<sup>00</sup></u>
8.	Decontamination of personnel and equipment, 10 hours at \$ <u>150<sup>00</sup></u> per hour  <u>ONE THOUSAND FIVE HUNDRED AND</u> <u>00/100</u> Dollars	\$ <u>1500<sup>00</sup></u>
9.	Standby time, 60 hours at \$ <u>50<sup>00</sup></u> per hour  <u>THREE THOUSAND AND 00/100</u> Dollars	\$ <u>3000<sup>00</sup></u>
10.	Per diem, 1 crew, 75 days at \$ <u>10<sup>00</sup></u> per day  <u>SEVEN HUNDRED FIFTY AND 00/100</u> Dollars	\$ <u>750<sup>00</sup></u>
11.	Haulage of wastes, 5 drums at \$ <u>700<sup>00</sup></u> per drum  <u>THREE THOUSAND FIVE HUNDRED</u> <u>00/100</u> Dollars	\$ <u>3500<sup>00</sup></u>
TOTAL PRICE BID		\$ <u>84730<sup>00</sup></u>

NOTE: SEE ENCLOSED LETTER FOR  
EXCEPTIONS & QUALIFICATIONS

REQUIRED INFORMATION ON BIDDER'S EQUIPMENT

1. Test Pump

Type SUBMERSIBLE TURBINE - 2 SIZES  
Manufacturer and Model Number AMERICAN TURBINE 8-L-30  
AMERICAN TURBINE 10-14-75 57M1  
Discharge Column Diameter 6" AND 8"  
Driver Type and Horsepower 300 KW GENERATOR  
75 KW GENERATOR

SUBCONTRACTORS

The Bidder further proposes that the following subcontracting firms or businesses be awarded subcontracts for the following portions of the work in the event that the Bidder is awarded the Contract:

WASTE DISPOSAL - EITHER OUR SUBCONTRACT OR YOURS

RINCHEM COMPANY INC  
Name  
4115 W. TURNER AVE PHOENIX AZ  
Street City State Zip

Name  
Street City State Zip

Name  
Street City State Zip

Name  
Street City State Zip

The Bidder further agrees that if his Bid is one of the three apparent low Bidders at time of Bid opening, he shall submit, within 5 days after the Bid opening, a listing of subcontracting firms or businesses that will be awarded subcontracts for work in excess of \$10,000.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

**SURETY**

If the Bidder is awarded a Construction Contract on this Proposal, the Surety who provides the Performance Bond will be

FIDELITY & DEPOSIT OF MARYLAND whose address is  
C/O VALLEY NTNL. CO. INS, P.O. BOX 31, PHOENIX AZ 85001 TELEPHONE 256-5000  
Street City State Zip

BIDDER

The name of the Bidder submitting this Proposal is WEBER

PUMP INC. doing business at

P.O. Box 26729 TEMPE AZ 85282  
Street City State Zip

which is the address to which all communications concerned with this Proposal and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Proposal, or of the partnership, or of all persons interested in this Proposal as principals are as follows:

BERNIE WEBER - PRESIDENT

FRED M. TREGASKES - VICE PRESIDENT

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this \_\_\_\_\_  
day of \_\_\_\_\_, 19\_\_.

Fred M. Tregaskes  
Signature of Bidder

VICE-PRESIDENT  
Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by it duly authorized officers this

17 day of MARCH, 1987.

(SEAL)

WEBER PUMP, INC.  
Name of Corporation Fred M. Ingarke  
By Susan M Kuzmuk V.P.  
Title TREASURER  
Attest Susan M Kuzmuk  
Secretary

\* \* \* \* \*

EXPECTED SCHEDULE OF WORK TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

1. Pull existing pumping equipment from well. Approximately 1½ to 2 days.
2. TV scan of well. Approximately 2 hrs to complete following proper clearing of the water in the well.
3. Furnish and install submersible pump and access pipe. Approximately 1 day.
4. Remove pump and access pipe. Approximately 1 day.
5. Re-install permanent pump to original depth. 2 days providing no repairs of pump are requested by the owner.
6. Clean up and mobilization to next site. Approximately 1 day.



EXPERIENCE LIST

SIMILAR WORK COMPLETED WITHIN LAST 3 YEARS

1. GOODYEAR AEROSPACE - GOODYEAR, ARIZONA

With ENGINEERING SCIENCE and CH2M-HILL

Test pumping, spinner logging, depth specific sampling

Randy Clark - GOODYEAR AEROSPACE 1-602-925-7274

2. CITY OF MESA - MESA, ARIZONA

Test pumping/spinner logging of city water well

Bill McCarthy - CITY OF MESA 1-602-834-2515

3. A-N WEST, INC. - PHOENIX, ARIZONA

Aquifer test in several wells in Arizona

Frank Turek - A-N WEST, INC. 1-602-957-3681



NOTE TO BIDDER: Use preferably BLACK ink for completing this Bid form.

**BID**

To: CH2M HILL SOUTHEAST, INC.

Address: 9830 South 51st Street, Suite A-130  
Phoenix, Arizona 85044

Project Title: Well Pumping Test

Bidder: LAYNE WESTERN COMPANY INC.

Address: 9002 S. HARDY DRIVE, TEMPE AZ 85284

Date: 3-17-87

Bidder's person to contact for additional information on this Bid:

Name: ROBERT M. HUSKISSON

Telephone: 602 893 3664

**BIDDER'S DECLARATION AND UNDERSTANDING**

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the EPA or the Contractor and that the Bid is made without any connection or collusion with any person submitting another Bid on the Subcontract.

The Bidder further declares that it has carefully examined the Subcontract Documents, that it has personally inspected the site, that it has satisfied itself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Subcontract Documents, and that this Bid is made according to the provisions and under the terms of the Subcontract Documents, which Subcontract Documents are hereby made a part of this Bid.

The Bidder further acknowledges that it has satisfied itself as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, access to the site, disposal, handling and storage of materials, availability of labor, water, electric power, roads,



and uncertainties of weather, river stages, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during the execution of the work and all other matters which can in any way affect the work or the cost thereof under the Subcontract.

The Bidder further acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials to be encountered from its inspection of the site and from reviewing any available records of exploratory work furnished by the Contractor, the EPA, other sources, or included in these Subcontract Documents; and that failure by the Subcontractor to acquaint itself with the physical conditions of the site and all the available information will not relieve it from responsibility for properly estimating the difficulty or cost of successfully performing the work.

The Bidder warrants, as a result of its examination and investigation of all the aforesaid data, that it can perform the work in a good and workmanlike manner and to the satisfaction of the Contractor and EPA. The Bidder understands and agrees that neither the Contractor nor the EPA assume any responsibility for any representation made by any of their officers or agents during or prior to the execution of the Subcontract, unless (1) such representations are expressly stated in the Subcontract, and (2) the Subcontract expressly provides that the responsibility therefor is assumed by the Contractor.

The Bidder warrants that no person or selling agency has been employed or retained to solicit or secure this Subcontract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee except bona fide employees or bona fide established commercial or selling agencies maintained by the Bidder for the purpose of securing business. For breach or violation of this assurance, the Contractor shall have the right to annul the Subcontract without liability or, at its discretion, to deduct from the Subcontract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

#### SUBCONTRACT EXECUTION

The Bidder agrees that if this Bid is accepted, it will, within 10 days, not including Sundays and legal holidays, after notice of award, sign the Subcontract in the form annexed hereto, and will, to the extent of its Bid, furnish all labor, machinery, tools, apparatus, and other means to do the work and furnish all the materials necessary to complete all work as specified or indicated in the Subcontract Documents.

### CERTIFICATES OF INSURANCE

The Bidder further agrees to furnish the Contractor, before commencing the work under this Subcontract, the certificates of insurance as specified in these Subcontract Documents.

### START OF CONSTRUCTION AND SUBCONTRACT COMPLETION TIME

The Bidder further agrees to begin work within 5 calendar days after receipt of Notice to Proceed and to complete work, in all respects, within 75 calendar days after the Notice to Proceed.

### LIQUIDATED DAMAGES

In the event the Bidder is awarded the Subcontract work and shall fail to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Subcontract Documents, liquidated damages shall be paid to the Contractor at the rate of \$200 per day for all work awarded under the Subcontract until the work shall have been satisfactorily completed as provided by the Subcontract Documents. Sundays and legal holidays shall be excluded in determining days in default.

### ADDENDA

The Bidder hereby acknowledges that it has received Addenda No's.

(Bidder shall insert 'No. of each Addendum received') and agrees that all addenda issued are hereby made part of the Subcontract Documents, and the Bidder further agrees that its Bid(s) includes all impacts resulting from said addenda.

### SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes, where applicable, are included in the stated bid prices for the work.

### UNIT PRICE AND LUMP SUM BID FORM

The Bidder shall complete the following Bid Proposal Form. Include costs for all category items:

## BID SCHEDULE

ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
1.	Mobilize and clean up, first site at \$ <u>2500.00</u> <u>TWENTY FIVE HUNDRED</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>2,500.00</u>
2.	Mobilize and clean up, six additional sites at \$ <u>1000.00</u> per site <u>ONE THOUSAND</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>6,000.00</u>
3.	Conduct specific capacity pumping tests using Owner's pump (twice per well), 14 tests at \$ <u>200.00</u> each <u>TWO-HUNDRED</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>2,800.00</u>
4.	Remove and reset Owner's pumps, 7 sites at \$ <u>1950</u> <sup>xx</sup> / <sub>100</sub> each <u>ONE THOUSAND NINE HUNDRED FIFTY</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>13,650.00</u>
5.	Furnish, install, and remove test pump, access pipe and appurtenances for logging while pumping, 7 sites at \$ <u>2800.00</u> each <u>TWENTY EIGHT HUNDRED</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>19,600.00</u>
6.	Hourly operation of test pump during logging, 112 hours at \$ <u>65.00</u> per hour <u>SIXTY-FIVE</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>7,280.00</u>

ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
7.	Level C protection equipment, 3 hours at \$ <u>150.00</u> per hour  <u>ONE HUNDRED FIFTY</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>450.00</u>
8.	Decontamination of personnel and equipment, 10 hours at \$ <u>150.00</u> per hour  <u>ONE HUNDRED FIFTY</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>1500.00</u>
9.	Standby time, 60 hours at \$ <u>65.00</u> per hour  <u>SIXTY-FIVE</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>3900.00</u>
10.	Per diem, 1 crew, 75 days at \$ <u>0.00</u> per day  <u>ZERO</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>0.00</u>
11.	Haulage of wastes, 5 drums at \$ <u>750.00</u> per drum  <u>SEVEN HUNDRED FIFTY</u> <sup>xx</sup> / <sub>100</sub> Dollars	\$ <u>3750.00</u>
TOTAL PRICE BID		\$ <u>61,430.00</u>
<u>SIXTY-ONE THOUSAND FOUR HUNDRED THIRTY</u> <sup>xx</sup> / <sub>100</sub>		

REQUIRED INFORMATION ON BIDDER'S EQUIPMENT

1. Test Pump

Type SUBMERSIBLES

Manufacturer and Model Number 1. GRUNDFOS SP123

2. STANDARD SSM 1011

Discharge Column Diameter 5-INCH

Driver Type and Horsepower 1. 40HP ROTOS 2. 60HP ROTOS

SUBCONTRACTORS

The Bidder further proposes that the following subcontracting firms or businesses be awarded subcontracts for the following portions of the work in the event that the Bidder is awarded the Contract:

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

The Bidder further agrees that if his Bid is one of the three apparent low Bidders at time of Bid opening, he shall submit, within 5 days after the Bid opening, a listing of subcontracting firms or businesses that will be awarded subcontracts for work in excess of \$10,000.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street

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City

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State

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Name

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City

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State

\_\_\_\_\_  
Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip

### SURETY

If the Bidder is awarded a Construction Contract on this Proposal, the Surety who provides the Performance Bond will be

OLLIVER PILCHER INSURANCE whose address is

7310 N. 16<sup>TH</sup> STREET SUITE 300 PHOENIX AZ 85020-5299  
Street City State Zip

**BIDDER**

The name of the Bidder submitting this Proposal is \_\_\_\_\_

LAYNE WESTERN Co., INC doing business at \_\_\_\_\_

3002 S. HARDY DR. TEMPE AZ 85284  
Street City State Zip

which is the address to which all communications concerned with this Proposal and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Proposal, or of the partnership, or of all persons interested in this Proposal as principals are as follows:

<u>R.C. DYMOND</u>	<u>PRESIDENT</u>
<u>N.E. MEHLHORN</u>	<u>REGIONAL VICE PRESIDENT</u>
<u>D.M. BRUE</u>	<u>DISTRICT MANAGER</u>

**If Sole Proprietor or Partnership**

IN WITNESS hereto the undersigned has set his (its) hand this \_\_\_\_\_  
day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by it duly authorized officers this

17 day of MARCH, 1987.

(SEAL)

LAYNE WESTERN CO., INC  
Name of Corporation

By [Signature]  
Title DISTRICT MANAGER.

Attest [Signature]  
Secretary

\* \* \* \* \*



## SUBCONTRACT

This Subcontract is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by and between CH2M HILL SOUTHEAST, INC., hereinafter called the "Contractor", and

---

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of \_\_\_\_\_,  
hereinafter called the "Subcontractor".

The Subcontractor, in consideration of the sum to be paid it by the Contractor and of the covenants and agreements herein contained, hereby agrees at its own cost and expense to perform all the work and furnish all the necessary materials, tools, labor, appliances, machinery, and appurtenances for well pumping test at Phoenix-Goodyear Airport as set forth in the Subcontract Documents.

The BIDDING REQUIREMENTS, including without limitation the signed copy of the Bid, the SUBCONTRACT FORM, the CONDITIONS OF THE SUBCONTRACT, the GENERAL AND TECHNICAL SPECIFICATIONS, and the DRAWINGS, are incorporated herein by reference and made a part of this Subcontract.

In consideration of the performance of the work as set forth in these Subcontract Documents, the Contractor agrees to pay to the Subcontractor the amount in the Bid as adjusted in accordance with the Subcontract Documents, or as otherwise herein provided, and to make such payments in the manner and at the times provided herein.

The Subcontractor agrees to complete the work within 75 calendar days of the Notice to Proceed, time being of the essence in this Subcontract, and to accept as full payment hereunder the amounts computed as determined by the Subcontract Documents and based on the said Bid.

In the event that the Subcontractor shall fail to complete the work within the time limit or the extended time limit agreed upon, as more particularly set forth in the Subcontract Documents, liquidated damages shall be paid at the rate of \$200 per day. Sundays and legal holidays shall be excluded in determining days in default.

CH2M HILL SOUTHEAST, INC.

By \_\_\_\_\_

Title \_\_\_\_\_

Subcontractor \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

\* \* \* \* \*

**ATTACHMENT B**  
**CERTIFICATION OF TRAINING, MEDICAL, AND SAFETY REQUIREMENTS**

The Subcontractor acknowledges that it has read, understands and has made available to its employees copies of 29 CFR 1910.134, EPA Executive Order 1440.2, and the provisions of American National Standards Institute Standard Z88.2 for respiratory protection. The Subcontractor hereby certifies that the Subcontractor and its employees who will be engaged in working on or near the Phoenix-Goodyear Airport project site meet all of the requirements of the above documents. These requirements include, but are not limited to, the following items:

- A. The Subcontractor's employees have been examined by a licensed physician within the last 12 months and have been determined to be physically able to perform the work, and to use the respiratory and other protective equipment required for this assignment;
- B. The Subcontractor's employees have been trained in the proper use of respiratory and other protective equipment and their limitations;
- C. The employees have received training for working safely in environments with known and unknown hazards;
- D. The Subcontractor has established and is maintaining a respiratory protection program that complies with the provisions of 29 CFR 1910.134; and
- E. The Subcontractor maintains appropriate surveillance of the work area conditions and degree of employee exposure to the hazardous materials present.

The Subcontractor further certifies that only respirators approved or accepted by NIOSH/MSHA for the conditions present at the site will be used by the Subcontractor's employees; that each of the Subcontractor's employees has been properly fitted to the respirators provided by the Subcontractor, including a test of the face-to-face piece seal; that the Subcontractor has provided its employees with written procedures covering safe use of respiratory and other protective equipment in dangerous atmospheres; and that the Subcontractor has established a program for inspection, maintenance, and care of the respiratory and other protective equipment.

\_\_\_\_\_  
Signature of Subcontractor

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\* \* \* \* \*

NOTE TO BIDDER: Use preferably BLACK ink for completing this Bid form.

**BID**

To: CH2M HILL SOUTHEAST, INC.

Address: 9830 South 51st Street, Suite A-130  
Phoenix, Arizona 85044

Project Title: Well Video Inspection

Bidder: BUCK WEBER & ASSOCIATES, INC.

Address: 14825 SOUTH WEBER DR.

Date: CHANDLER, ARIZONA 85226

Bidder's person to contact for additional information on this Bid:

Name: DEL KEENAN

Telephone: 838-5880

**BIDDER'S DECLARATION AND UNDERSTANDING**

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the EPA or the Contractor and that the Bid is made without any connection or collusion with any person submitting another Bid on the Subcontract.

The Bidder further declares that it has carefully examined the Subcontract Documents, that it has personally inspected the site, that it has satisfied itself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Subcontract Documents, and that this Bid is made according to the provisions and under the terms of the Subcontract Documents, which Subcontract Documents are hereby made a part of this Bid.

The Bidder further acknowledges that it has satisfied itself as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, access to the site, disposal, handling and storage of materials, availability of labor, water, electric power, roads,

and uncertainties of weather, river stages, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during the execution of the work and all other matters which can in any way affect the work or the cost thereof under the Subcontract.

The Bidder further acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials to be encountered from its inspection of the site and from reviewing any available records of exploratory work furnished by the Contractor, the EPA, other sources, or included in these Subcontract Documents; and that failure by the Subcontractor to acquaint itself with the physical conditions of the site and all the available information will not relieve it from responsibility for properly estimating the difficulty or cost of successfully performing the work.

The Bidder warrants, as a result of its examination and investigation of all the aforesaid data, that it can perform the work in a good and workmanlike manner and to the satisfaction of the Contractor and EPA. The Bidder understands and agrees that neither the Contractor nor the EPA assume any responsibility for any representation made by any of their officers or agents during or prior to the execution of the Subcontract, unless (1) such representations are expressly stated in the Subcontract, and (2) the Subcontract expressly provides that the responsibility therefor is assumed by the Contractor.

The Bidder warrants that no person or selling agency has been employed or retained to solicit or secure this Subcontract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee except bona fide employees or bona fide established commercial or selling agencies maintained by the Bidder for the purpose of securing business. For breach or violation of this assurance, the Contractor shall have the right to annul the Subcontract without liability or, at its discretion, to deduct from the Subcontract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

#### SUBCONTRACT EXECUTION

The Bidder agrees that if this Bid is accepted, it will, within 10 days, not including Sundays and legal holidays, after notice of award, sign the Subcontract in the form annexed hereto, and will, to the extent of its Bid, furnish all labor, machinery, tools, apparatus, and other means to do the work and furnish all the materials necessary to complete all work as specified or indicated in the Subcontract Documents.

### CERTIFICATES OF INSURANCE

The Bidder further agrees to furnish the Contractor, before commencing the work under this Subcontract, the certificates of insurance as specified in these Subcontract Documents.

### START OF CONSTRUCTION AND SUBCONTRACT COMPLETION TIME

The Bidder further agrees to begin work within 5 calendar days after receipt of Notice to Proceed and to complete work, in all respects, within 75 calendar days after the Notice to Proceed.

### LIQUIDATED DAMAGES

In the event the Bidder is awarded the Subcontract work and shall fail to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Subcontract Documents, liquidated damages shall be paid to the Contractor at the rate of \$200 per day for all work awarded under the Subcontract until the work shall have been satisfactorily completed as provided by the Subcontract Documents. Sundays and legal holidays shall be excluded in determining days in default.

### ADDENDA

The Bidder hereby acknowledges that it has received Addenda No's.

(Bidder shall insert No. of each Addendum received) and agrees that all addenda issued are hereby made part of the Subcontract Documents, and the Bidder further agrees that its Bid(s) includes all impacts resulting from said addenda.

### SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes, where applicable, are included in the stated bid prices for the work.

### UNIT PRICE AND LUMP SUM BID FORM

The Bidder shall complete the following Bid Proposal Form. Include costs for all category items:

BID SCHEDULE

ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
1.	Mobilize and clean up, first site at \$ <u>500<sup>00</sup></u> <u>FIVE HUNDRED &amp; 00/100</u> Dollars	\$ <u>500<sup>00</sup></u>
2.	Mobilize and clean up, 6 additional sites at \$ <u>350<sup>00</sup></u> per site <u>TWO THOUSAND ONE HUNDRED &amp; 00/100</u> Dollars	\$ <u>2100.00</u>
3.	Conduct video inspection and taping, 7 sites at \$ <u>500<sup>00</sup></u> each <u>THREE THOUSAND FIVE HUNDRED &amp; 00/100</u> Dollars	\$ <u>3500.00</u>
4.	Level C protection equipment, 3 hours at \$ <u>500<sup>00</sup></u> per hour <u>ONE THOUSAND FIVE HUNDRED &amp; 00/100</u> Dollars	\$ <u>1500.00</u>
5.	Decontamination of personnel and equipment, 15 hours at \$ <u>100<sup>00</sup></u> per hour <u>ONE THOUSAND FIVE HUNDRED &amp; 00/100</u> Dollars	\$ <u>1500.00</u>
6.	Standby time, 40 hours at \$ <u>50<sup>00</sup></u> per hour <u>TWO HUNDRED &amp; 00/100</u> Dollars	\$ <u>200.00</u>

2000 mistake

Corrected with  
Del Keenan's  
approval 3/20/87  
1:52 pm

\$200 should be \$2000  
Item # 4

ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
7.	Per diem, 1 crew, 75 days at \$ <u>10<sup>00</sup></u> per day <u>SEVEN HUNDRED FIFTY + 00/100</u> Dollars	\$ <u>750<sup>00</sup></u>
8.	Haulage of wastes, 5 drums at \$ <u>700<sup>00</sup></u> per drum <u>THREE THOUSAND FIVE HUNDRED +</u> <u>00/100</u> Dollars	\$ <u>3500<sup>00</sup></u>  15,350
TOTAL PRICE BID		\$ <u>13,550.00</u>



REQUIRED INFORMATION ON BIDDER'S EQUIPMENT

1. Borehole Television Equipment

Camera Diameter \_\_\_\_\_

Housing Diameter \_\_\_\_\_

Light-to-Camera Distance \_\_\_\_\_ (or variable \_\_\_\_\_)

Recording Format (VHS \_\_\_\_\_, BETA \_\_\_\_\_, or other \_\_\_\_\_)

SUBCONTRACTORS

The Bidder further proposes that the following subcontracting firms or businesses be awarded subcontracts for the following portions of the work in the event that the Bidder is awarded the Contract:

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

The Bidder further agrees that if his Bid is one of the three apparent low Bidders at time of Bid opening, he shall submit, within 5 days after the Bid opening, a listing of subcontracting firms or businesses that will be awarded subcontracts for work in excess of \$10,000.

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

SURETY

If the Bidder is awarded a Construction Contract on this Proposal, the Surety who provides the Performance Bond will be

FIDELITY & DEPOSIT OF MARYLAND whose address is

c/o VALLEY NTNL CO, P.O. BOX 31, PHX AZ 85001  
Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

BIDDER

The name of the Bidder submitting this Proposal is \_\_\_\_\_

BUCK WEBER & ASSOC. doing business at

16825 S. WEBER, CHANDLER AZ 85226  
Street City State Zip

which is the address to which all communications concerned with this Proposal and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Proposal, or of the partnership, or of all persons interested in this Proposal as principals are as follows:

BERNARD L. WEBER, PRES.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this \_\_\_\_\_  
day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by it duly authorized officers this

17 day of MARCH, 1987.

(SEAL)

BUCK WEDER & ASSOC  
Name of Corporation

By [Signature]

Title PRES.

Attest Susan M. Kuzmick  
Secretary

\* \* \* \* \*

NOTE TO BIDDER: Use preferably BLACK ink for completing this Bid form.

**BID**

To: CH2M HILL SOUTHEAST, INC.  
Address: 9830 South 51st Street, Suite A-130  
Phoenix, Arizona 85044  
Project Title: Well Video Inspection  
Bidder: LAYNE WESTERN COMPANY INC  
Address: 900Z SOUTH HARDY DRIVE TEMPE AZ  
Date: 3-17-87 85284  
Bidder's person to contact for additional information on this Bid:  
Name: LAYNE WESTERN ATTN: R.M. HUSKISSON  
Telephone: 1-602-893-3664

**BIDDER'S DECLARATION AND UNDERSTANDING**

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the EPA or the Contractor and that the Bid is made without any connection or collusion with any person submitting another Bid on the Subcontract.

The Bidder further declares that it has carefully examined the Subcontract Documents, that it has personally inspected the site, that it has satisfied itself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Subcontract Documents, and that this Bid is made according to the provisions and under the terms of the Subcontract Documents, which Subcontract Documents are hereby made a part of this Bid.

The Bidder further acknowledges that it has satisfied itself as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, access to the site, disposal, handling and storage of materials, availability of labor, water, electric power, roads,

and uncertainties of weather, river stages, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during the execution of the work and all other matters which can in any way affect the work or the cost thereof under the Subcontract.

The Bidder further acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials to be encountered from its inspection of the site and from reviewing any available records of exploratory work furnished by the Contractor, the EPA, other sources, or included in these Subcontract Documents; and that failure by the Subcontractor to acquaint itself with the physical conditions of the site and all the available information will not relieve it from responsibility for properly estimating the difficulty or cost of successfully performing the work.

The Bidder warrants, as a result of its examination and investigation of all the aforesaid data, that it can perform the work in a good and workmanlike manner and to the satisfaction of the Contractor and EPA. The Bidder understands and agrees that neither the Contractor nor the EPA assume any responsibility for any representation made by any of their officers or agents during or prior to the execution of the Subcontract, unless (1) such representations are expressly stated in the Subcontract, and (2) the Subcontract expressly provides that the responsibility therefor is assumed by the Contractor.

The Bidder warrants that no person or selling agency has been employed or retained to solicit or secure this Subcontract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee except bona fide employees or bona fide established commercial or selling agencies maintained by the Bidder for the purpose of securing business. For breach or violation of this assurance, the Contractor shall have the right to annul the Subcontract without liability or, at its discretion, to deduct from the Subcontract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

#### SUBCONTRACT EXECUTION

The Bidder agrees that if this Bid is accepted, it will, within 10 days, not including Sundays and legal holidays, after notice of award, sign the Subcontract in the form annexed hereto, and will, to the extent of its Bid, furnish all labor, machinery, tools, apparatus, and other means to do the work and furnish all the materials necessary to complete all work as specified or indicated in the Subcontract Documents.

### CERTIFICATES OF INSURANCE

The Bidder further agrees to furnish the Contractor, before commencing the work under this Subcontract, the certificates of insurance as specified in these Subcontract Documents.

### START OF CONSTRUCTION AND SUBCONTRACT COMPLETION TIME

The Bidder further agrees to begin work within 5 calendar days after receipt of Notice to Proceed and to complete work, in all respects, within 75 calendar days after the Notice to Proceed.

### LIQUIDATED DAMAGES

In the event the Bidder is awarded the Subcontract work and shall fail to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Subcontract Documents, liquidated damages shall be paid to the Contractor at the rate of \$200 per day for all work awarded under the Subcontract until the work shall have been satisfactorily completed as provided by the Subcontract Documents. Sundays and legal holidays shall be excluded in determining days in default.

### ADDENDA

The Bidder hereby acknowledges that it has received Addenda No's.

(Bidder shall insert 'No. of each Addendum received') and agrees that all addenda issued are hereby made part of the Subcontract Documents, and the Bidder further agrees that its Bid(s) includes all impacts resulting from said addenda.

### SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes, where applicable, are included in the stated bid prices for the work.

### UNIT PRICE AND LUMP SUM BID FORM

The Bidder shall complete the following Bid Proposal Form. Include costs for all category items:

## BID SCHEDULE

ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
1.	Mobilize and clean up, first site at \$ <u>60.00</u> <u>SIXTY</u> <sup>xx</sup> / <sub>100</sub> _____ _____ Dollars	\$ <u>60.00</u>
2.	Mobilize and clean up, 6 additional sites at \$ <u>75.00</u> per site <u>SEVENTY-FIVE</u> <sup>xx</sup> / <sub>100</sub> _____ _____ Dollars	\$ <u>450.00</u>
3.	Conduct video inspection and taping, 7 sites at \$ <u>635.00</u> each <u>SIX HUNDRED THIRTY FIVE</u> <sup>xx</sup> / <sub>100</sub> _____ _____ Dollars	\$ <u>4,445.00</u>
4.	Level C protection equipment, 3 hours at \$ <u>150.00</u> per hour <u>ONE HUNDRED FIFTY</u> <sup>xx</sup> / <sub>100</sub> _____ _____ Dollars	\$ <u>450.00</u>
5. RMA	Decontamination of personnel and equipment, 15 hours at \$ <u>100.00</u> per hour <u>ONE HUNDRED</u> <sup>xx</sup> / <sub>100</sub> _____ _____ Dollars	\$ <u>1500.00</u>
6.	Standby time, 40 hours at \$ <u>70.00</u> per hour <u>SEVENTY</u> <sup>xx</sup> / <sub>100</sub> _____ _____ Dollars	\$ <u>2800.00</u>



ITEM NO.	ITEM, QUANTITY, AND UNIT PRICE WRITTEN IN FIGURES (\$ ) AND WORDS	EXTENDED TOTAL (FIGURES)
7.	Per diem, 1 crew, 75 days at \$ <u>0.00</u> per day <u>ZERO xx/100</u> Dollars	\$ <u>0.00</u>
8.	Haulage of wastes, 5 drums at \$ <u>800.00</u> per drum <u>EIGHT HUNDRED xx/100</u> Dollars	\$ <u>4000.00</u>

TOTAL PRICE BID

THIRTEEN THOUSAND SEVEN HUNDRED FIVE xx/100 DOLLARS \$ 13,705.00

REQUIRED INFORMATION ON BIDDER'S EQUIPMENT

1. Borehole Television Equipment

Camera Diameter 2.50 INCHES OR 4.00 INCHES  
Housing Diameter 2.75 INCHES OR 4.75 INCHES  
Light-to-Camera Distance 12/18 (or variable \_\_\_\_\_)  
Recording Format (VHS X, BETA \_\_\_\_\_, or other \_\_\_\_\_)

SUBCONTRACTORS

The Bidder further proposes that the following subcontracting firms or businesses be awarded subcontracts for the following portions of the work in the event that the Bidder is awarded the Contract:

WELL SCAN SURVEYS  
Name \_\_\_\_\_  
3713 W. CAVALIER DR. PHOENIX, AZ 85019  
Street City State Zip

Name \_\_\_\_\_  
Street City State Zip

Name \_\_\_\_\_  
Street \_\_\_\_\_  
te Zip

Name \_\_\_\_\_  
Street \_\_\_\_\_  
State Zip

*Well Scan*  
*Jeray*  
*841-0219*  
*Won't bid*

The Bidder further agrees that if his Bid is one of the three apparent low Bidders at time of Bid opening, he shall submit, within 5 days after the Bid opening, a listing of subcontracting firms or businesses that will be awarded subcontracts for work in excess of \$10,000.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City State Zip

**SURETY**

If the Bidder is awarded a Construction Contract on this Proposal, the Surety who provides the Performance Bond will be

OLLIVER PILCHER INSURANCE whose address is

7310 N. 16<sup>TH</sup> ST. SUITE 300 PHOENIX AZ 85020-5299  
Street City State Zip

**BIDDER**

The name of the Bidder submitting this Proposal is \_\_\_\_\_

LAYNE WESTERN COMPANY INC doing business at

9002 S. HARDY DR. TEMPE AZ 85284  
Street City State Zip

which is the address to which all communications concerned with this Proposal and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Proposal, or of the partnership, or of all persons interested in this Proposal as principals are as follows:

<u>R.C. DYMOND</u>	<u>PRESIDENT</u>
<u>N.E. MEHLHORN</u>	<u>REGIONAL VICE PRESIDENT</u>
<u>D.M. BRUE</u>	<u>DISTRICT MANAGER</u>
<u>R.M. HUSKISSON</u>	<u>ENGINEER</u>

**If Sole Proprietor or Partnership**

IN WITNESS hereto the undersigned has set his (its) hand this \_\_\_\_\_  
day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by it duly authorized officers this

17<sup>TH</sup> day of MARCH, 1987.

(SEAL)

LAYNE WESTERN COMPANY INC.  
Name of Corporation

By

[Signature]  
Title DISTRICT MANAGER.

Attest

[Signature]  
Secretary

\* \* \* \* \*

### SUBCONTRACT

This Subcontract is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by and between CH2M HILL SOUTHEAST, INC., hereinafter called the "Contractor", and

---

---

of \_\_\_\_\_,  
hereinafter called the "Subcontractor".

The Subcontractor, in consideration of the sum to be paid it by the Contractor and of the covenants and agreements herein contained, hereby agrees at its own cost and expense to perform all the work and furnish all the necessary materials, tools, labor, appliances, machinery, and appurtenances for well video inspection at Phoenix-Goodyear Airport as set forth in the Subcontract Documents.

The BIDDING REQUIREMENTS, including without limitation the signed copy of the Bid, the SUBCONTRACT FORM, the CONDITIONS OF THE SUBCONTRACT, the GENERAL AND TECHNICAL SPECIFICATIONS, and the DRAWINGS, are incorporated herein by reference and made a part of this Subcontract.

In consideration of the performance of the work as set forth in these Subcontract Documents, the Contractor agrees to pay to the Subcontractor the amount in the Bid as adjusted in accordance with the Subcontract Documents, or as otherwise herein provided, and to make such payments in the manner and at the times provided herein.

The Subcontractor agrees to complete the work within 75 calendar days of the Notice to Proceed, time being of the essence in this Subcontract, and to accept as full payment hereunder the amounts computed as determined by the Subcontract Documents and based on the said Bid.

In the event that the Subcontractor shall fail to complete the work within the time limit or the extended time limit agreed upon, as more particularly set forth in the Subcontract Documents, liquidated damages shall be paid at the rate of \$200 per day. Sundays and legal holidays shall be excluded in determining days in default.

CH2M HILL SOUTHEAST, INC.

By \_\_\_\_\_

Title \_\_\_\_\_

Subcontractor \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

\* \* \* \* \*

**ATTACHMENT B**  
**CERTIFICATION OF TRAINING, MEDICAL, AND SAFETY REQUIREMENTS**

The Subcontractor acknowledges that it has read, understands and has made available to its employees copies of 29 CFR 1910.134, EPA Executive Order 1440.2, and the provisions of American National Standards Institute Standard Z88.2 for respiratory protection. The Subcontractor hereby certifies that the Subcontractor and its employees who will be engaged in working on or near the Phoenix-Goodyear Airport project site meet all of the requirements of the above documents. These requirements include, but are not limited to, the following items:

- A. The Subcontractor's employees have been examined by a licensed physician within the last 12 months and have been determined to be physically able to perform the work, and to use the respiratory and other protective equipment required for this assignment;
- B. The Subcontractor's employees have been trained in the proper use of respiratory and other protective equipment and their limitations;
- C. The employees have received training for working safely in environments with known and unknown hazards;
- D. The Subcontractor has established and is maintaining a respiratory protection program that complies with the provisions of 29 CFR 1910.134; and
- E. The Subcontractor maintains appropriate surveillance of the work area conditions and degree of employee exposure to the hazardous materials present.

The Subcontractor further certifies that only respirators approved or accepted by NIOSH/MSHA for the conditions present at the site will be used by the Subcontractor's employees; that each of the Subcontractor's employees has been properly fitted to the respirators provided by the Subcontractor, including a test of the face-to-face piece seal; that the Subcontractor has provided its employees with written procedures covering safe use of respiratory and other protective equipment in dangerous atmospheres; and that the Subcontractor has established a program for inspection, maintenance, and care of the respiratory and other protective equipment.

\_\_\_\_\_  
Signature of Subcontractor

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\* \* \* \* \*



EXPERIENCE LIST

SIMILAR WORK COMPLETED WITHIN LAST 3 YEARS

1. GOODYEAR AEROSPACE - GOODYEAR, ARIZONA  
With ENGINEERING SCIENCE and CH2M-HILL  
Test pumping, spinner logging, depth specific sampling  
Randy Clark - GOODYEAR AEROSPACE 1-602-925-7274
2. CITY OF MESA - MESA, ARIZONA  
Test pumping/spinner logging of city water well  
Bill McCarthy - CITY OF MESA 1-602-834-2515
3. A-N WEST, INC. - PHOENIX, ARIZONA  
Aquifer test in several wells in Arizona  
Frank Turek - A-N WEST, INC. 1-602-957-3681



EXPECTED SCHEDULE OF WORK TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

1. Pull existing pumping equipment from well. Approximately 1½ to 2 days.
2. TV scan of well. Approximately 2 hrs to complete following proper clearing of the water in the well.
3. Furnish and install submersible pump and access pipe. Approximately 1 day.
4. Remove pump and access pipe. Approximately 1 day.
5. Re-install permanent pump to original depth. 2 days providing no repairs of pump are requested by the owner.
6. Clean up and mobilization to next site. Approximately 1 day.



Date 3/10/87 Time 200 <sup>a.m.</sup>  
~~p.m.~~ Phone No. \_\_\_\_\_ Project No. WB 3600 FG

☐ To (A) Reed

☐ From (B) Jim Dohy / Reclaimed Metals

Subject Phonics - In the Field Drilling

1. Jim stated that proposed location is in a busy operational area.
2. suggests we drill Southwest 50' across from an empty farm land.
3. They would prefer that we not place well on their property to avoid future access problems and worrying about safety of offsite personnel.





Engineers  
Planners  
Economists  
Scientists

February 26, 1987

W63600.FQ

Steve Cleveland  
Assistant City Manager  
City of Goodyear  
119 N. Litchfield Road  
Goodyear, Arizona 85336

Dear Sir:

CH2M HILL is under contract to the EPA to investigate ground water contamination in the Phoenix-Goodyear Airport Area.

Our current work plan includes installing a ground water monitoring wells west of the Phoenix-Goodyear Airport and Goodyear Aerospace Corporation to assess possible ground water contamination down gradient from proposed source areas to the east in the vicinity of the airport. Drilling at the airport is scheduled to begin the week of March 9, 1987. Two (2) wells will be installed on the City of Goodyear property, near the southwest end of the runway in the NW/4 of Section 20, T1N, R1W. It is presently contemplated that six (6) wells will be needed within the Cities easement along Reams Road, Section 17 and 20, T1N, R1W, to further evaluate the extent of contamination. The necessity of the wells will be dependent upon the results of the planned drilling program to the northeast of your property.

It is anticipated that drilling would begin on your property in about 8 weeks. In order to properly implement the program we are requesting permission at this time to install 6 wells on your property. Please sign the attached "Permission" form and return to:

Peter Mock  
CH2M HILL, Inc.  
9830 South 51st Street, Suite A-130  
Phoenix, Arizona 85044

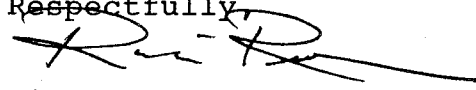
The proposed locations are provided on the attached figure. The wells would be installed to depths as great as 350 feet and would be monitored quarterly through 1988. We would be happy to meet with you to address any concerns or questions you may have and also to determine appropriate locations for

STEVE CLEVELAND  
February 26, 1987  
W63600.FQ  
Page 2

the wells which would not affect your existing or planned operations.

If you should need further information pertaining to this matter, please contact myself or Peter Mock at (602) 893-6155.

Respectfully,



Rich Reed PE, PG

1 attachment

cc: Peter Mock/CH2M HILL

tls:PHC1/111

PERMISSION FOR ACCESS TO PROPERTIES CONCERNING  
THE PHOENIX-GOODYEAR AIRPORT HAZARDOUS WASTE SITE  
GOODYEAR, ARIZONA

I, the undersigned, am the owner, his representative, or otherwise control the real property at the location described below. Representatives of the United States Environmental Protection Agency (USEPA) have been informed that elevated levels of trichloroethylene (TCE), perchloroethylene (PCE) and other hydrocarbons may be found in soils and ground water at this location, and that they may be injurious to the health of persons residing on or nearby this property. I also understand that further efforts are needed to characterize the source of this contamination and define its extent in this vicinity.

I hereby give permission to EPA and EPA's contractors and subcontractors', as well as their employees, agents and other designated representatives (who may include state and local agencies and their officials), to have access to my property and to undertake such investigations, monitoring, surveying, and testing that may be necessary. Activities will be limited to surveying ground water monitoring, and well drilling during the months of January through March, 1987 and sampling quarterly through December 1987.

I understand that the work described above may involve, among other things, some disturbance of soil and vegetation on my property, and drilling small holes into the ground. The tentative locations for wells are shown on the attached map. I also understand that any disturbed vegetation will be restored to substantially the same condition as existed prior to such disturbance; that wells will be capped with locked covers; and that my property will be returned to substantially the same condition upon completion of the sampling.

Property Address:     City of Goodyear  
                         Reams Road Easement  
                         Section 17 and 20, T1N, R1W

Signature of Owner/Occupant (all joint owners must sign):

\_\_\_\_\_  
(Signature)

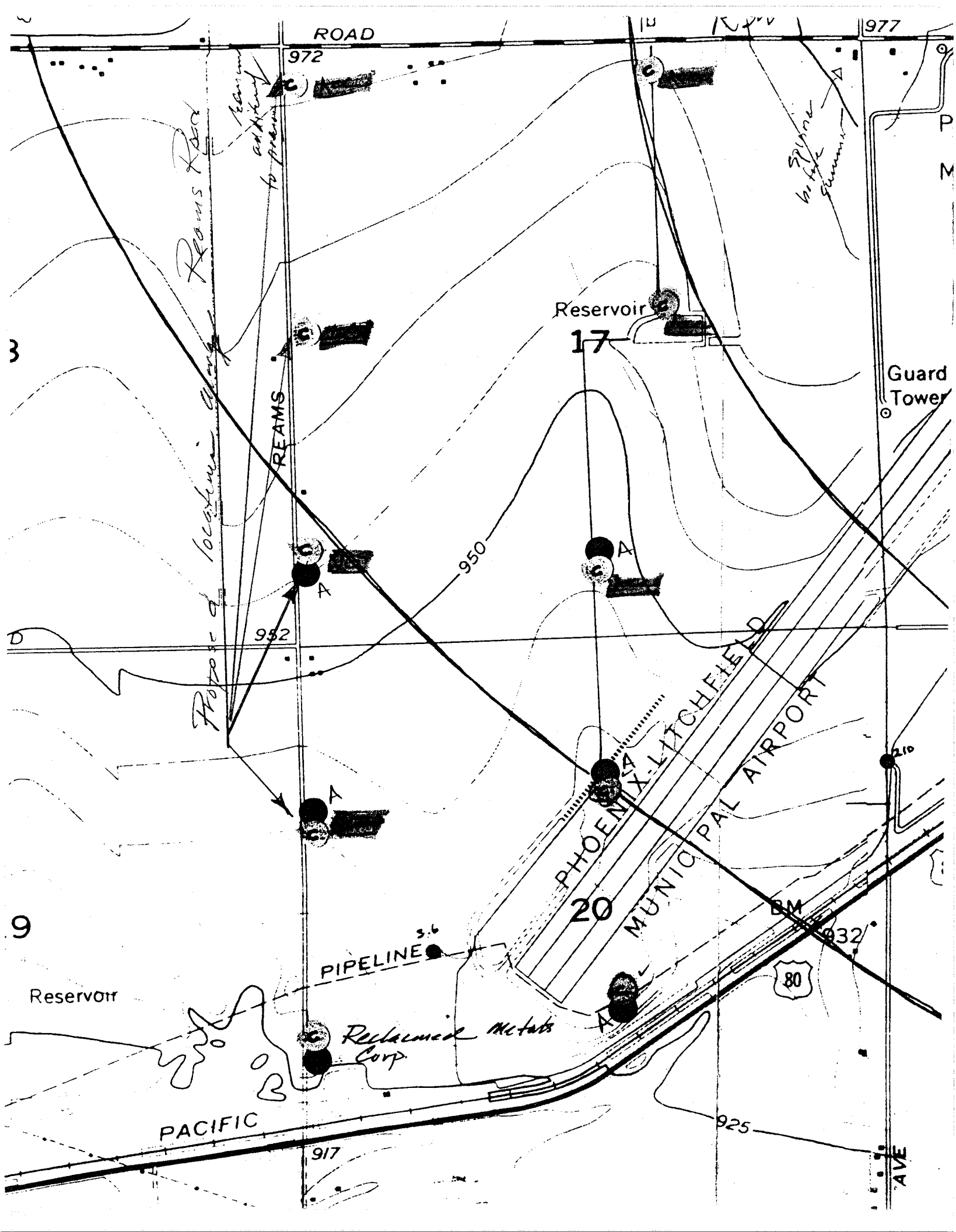
\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

215 Fremont Street

San Francisco, Ca. 94105

PERMISSION FOR ACCESS TO PROPERTIES CONCERNING  
THE PHOENIX-GOODYEAR AIRPORT HAZARDOUS WASTE SITE  
GOODYEAR, ARIZONA

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I understand that the work described above may involve, amount other things, some disturbance of soil and vegetation on my property, and drilling small holes into the ground. The tentative locations for wells are shown on the attached map. I also understand that any disturbed vegetation will be restored to substantially the same condition as existed prior to such disturbance; that wells will be capped with locked covers; and that my property will be returned to substantially the same condition upon completion of the sampling.

Property Address: Parcels

Signature of Owner/Occupant (all joint owners must sign):

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Property Address: Parcels

Signature of Owner/Occupant (all joint owners must sign):

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Property Address: Parcels

Signature of Owner/Occupant (all joint owners must sign):

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Property Address: Parcels

Signature of Owner/Occupant (all joint owners must sign):

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)



SUBJECT \_\_\_\_\_

BY \_\_\_\_\_ DATE \_\_\_\_\_

SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NO. \_\_\_\_\_

## PGA Soil Gas

### Sec 16 & 21

500-7-006D COP 620 W. Washington 05003  
500-7-006H COP "  
500-7-006G "  
500-7-~~007A~~ ~~007B~~ 003C GAC ✓  
500-7-006B Delta cov 3300 N. Central # 2100 Phx 05012

## PGA Monitoring Wells (First Two Rings)

500-7-007 Leo C. Smith et al 4434 W. 62<sup>nd</sup> Dr Phx 05033  
-008 "  
-009 "  
-010C "  
-011 "  
-014C R.R. Wood & Jewel A P.O. Box 1118 Avon, AZ 05325  
-015 "  
-016C "  
-017D "  
-018C Int'l Mill Service Inc, 1310 Market St Philly 19103  
-031D R.R. Wood  
  
-006B  
-006D  
-006G  
-006H COP  
-001 Delta cov Investments



Engineers  
Planners  
Economists  
Scientists

February 19, 1987

W63600.FQ

Steve Cleveland  
Assistant City Manager  
City of Goodyear  
119 N. Litchfield Road  
Goodyear, Arizona 85336

Dear Sir:

CH2M HILL is under contract to the EPA to investigate ground water contamination in the Phoenix-Goodyear Airport Area.

Our current work plan includes installing a ground water monitoring well for early contaminant detection of water supplied by the city Municipal Well No. 1 located off Western Avenue. The proposed well is stratigically located along an imaginary line between known contaminant sources and the city well and therefore the well location is critical to the investigation.

It is anticipated that drilling would begin on your property in about 6 weeks. In order to properly implement the program we are requesting permission at this time to install one well on your property. Please sign the attached "Permission" form and return to :

Peter Mock  
CH2M HILL  
9830 S. 51st Street, Suite A-130  
Phoenix, Arizona 85044

The proposed location is provided on the attached figure. The well would be installed to a depth of about 350 feet and would be monitored quarterly through 1988. We would be happy to meet with you to address any concerns or questions you may have and also to determine an appropriate location for the well which would not affect your existing or planned operations.

W63600.FQ  
February 19, 1987  
Page 2

If you should need further information pertaining to this matter please contact myself or Peter Mock at (602) 893-6155.

Respectfully,

  
Rich Reed, PE, PG

1 attachment

cc: Peter Mock/CH2M HILL

tls:PHC1/111

PERMISSION FOR ACCESS TO PROPERTIES CONCERNING  
THE PHOENIX-GOODYEAR AIRPORT HAZARDOUS WASTE SITE  
GOODYEAR, ARIZONA

I, the undersigned, am the owner, his representative, or otherwise control the real property at the location described below. Representatives of the United States Environmental Protection Agency (USEPA) have been informed that elevated levels of trichloroethylene (TCE), perchloroethylene (PCE) and other hydrocarbons may be found in soils and ground water at this location, and that they may be injurious to the health of persons residing on or nearby this property. I also understand that further efforts are needed to characterize the source of this contamination and define its extent in this vicinity.

I hereby give permission to EPA and EPA's contractors and subcontractors', as well as their employees, agents and other designated representatives (who may include state and local agencies and their officials), to have access to my property and to undertake such investigations, monitoring, surveying, and testing that may be necessary. Activities will be limited to surveying, ground water monitoring, and well drilling during the months of January through March, 1987 and sampling quarterly through December 1987.

I understand that the work described above may involve, among other things, some disturbance of soil and vegetation on my property, and drilling small holes into the ground. The tentative locations for wells are shown on the attached map. I also understand that any disturbed vegetation will be restored to substantially the same condition as existed prior to such disturbance; that wells will be capped with locked covers; and that my property will be returned to substantially the same condition upon completion of the sampling.

Property Address:     City of Goodyear  
                         Blanco Street Easement  
                         Near the east corner of Blanco Street  
                         and Western Avenue

Signature of Owner/Occupant (all joint owners must sign):

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

BOJENA VISTA

Born 500 Map 17 Co. Assessor

AVENUE

35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
(35)	(34)	(33)	(32)	(31)	(30)	(29)	(28)	(27)	(26)	(25)	(24)	(23)	(22)	(21)	(20)	(19)	(18)	(17)	(16)	(15)	(14)	(13)	(12)	(11)	(10)	(9)	(8)	(7)	(6)	(5)	(4)	(3)	(2)	(1)

Businesses

1. Goodale True Value Hardware
2. Goodale True Value Hardware
3. Goodale Tire
4. Bee Stone Text/Myers Music
5. First Interstate Bank
6. Nutrition Center
7. H&R Back/Simco Athletic Supply
8. Goodyear Police Station

AVENUE

LITCHFIELD

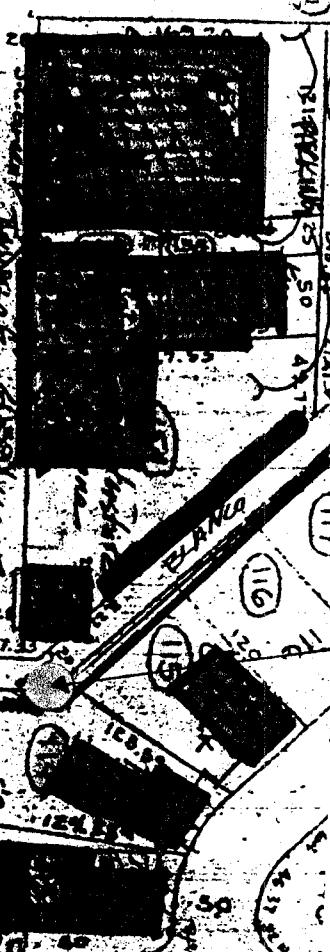
Proposed Monitoring Well location - City of Goodyear

STA

AVENUE

Town of Goodyear

153 W. 4th (B-1-1) Citywell



112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Engineers  
Planners  
Economists  
Scientists

February 18, 1987

W63600.FQ

Jim Daley  
Reclaimed Metals Corporation  
Box 1251  
Goodyear, Arizona 85338

Dear Sir:

CH2M HILL is under contract to the EPA to investigate ground water contamination in the Phoenix-Goodyear Airport Area. Our current work plan includes installing ground water monitoring wells southeast of the Phoenix-Goodyear Airport in a sequential fashion to assess possible ground water contamination down gradient from proposed source areas in the vicinity of the airport. Drilling at the airport is scheduled to begin the week of February 23, 1987. Two (2) wells will be installed on the City of Goodyear property, near the southwest end of the runway in the NE/4 of Section 20, T1N, R3W. It is presently contemplated that two (2) wells may be needed within the area of Reclaimed Metals Corporation property boundaries to further evaluate the extent of contamination. The necessity of the wells will be dependent upon the results of the planned drilling program to the northeast of your property.

It is anticipated that drilling would begin on your property in about 8 weeks (if necessary). In order to properly implement the program we are requesting permission at this time to install 2 wells on your property. Please sign the attached "Permission" form and return to :

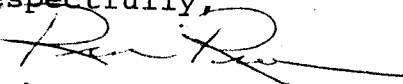
Peter Mock  
CH2M HILL  
9830 S. 51st Street, Suite A-130  
Phoenix, Arizona 85044

The proposed locations are provided on the attached figures. The wells would be installed to depths as great as 350 feet and would be monitored quarterly through 1988. We would be happy to meet with you to address any concerns or questions you may have and also to determine appropriate locations for the wells which would not affect your existing or planned operations.

JIM DALEY  
W63600.FQ  
February 18, 1987  
Page 2

If you should need further information pertaining to this matter please contact myself or Peter Mock at (602) 893-6155.

Respectfully,



Rich Reed  
Geologist

2 attachments

cc: Peter Mock/CH2M HILL  
John Lucero/CH2M HILL

tls:PHC1/111

PERMISSION FOR ACCESS TO PROPERTIES CONCERNING  
THE PHOENIX-GOODYEAR AIRPORT HAZARDOUS WASTE SITE  
GOODYEAR, ARIZONA

I, the undersigned, am the owner, his representative, or otherwise control the real property at the location described below. Representatives of the United States Environmental Protection Agency (USEPA) have informed that elevated levels of trichloroethylene (TCE), perchloroethylene (PCE) and other hydrocarbons may be found in soils and ground water at this location, and that they may be injurious to the health of persons residing on or nearby this property. I also understand that further efforts are needed to characterize the source of this contamination and define its extent in this vicinity.

I hereby give permission to EPA and EPA's contractors and subcontractors', as well as their employees, agents and other designated representatives (who may include state and local agencies and their officials), to have access to my property and to undertake such investigations, monitoring, surveying, and testing that may be necessary. Activities will be limited to surveying and ground water monitoring well drilling during the months of January through March, 1987 and sampling quarterly through December 1987.

I understand that the work described above may involve, amount other things, some disturbance of soil and vegetation on my property, and drilling small holes into the ground. The tentative locations for wells are shown on the attached map. I also understand that any disturbed vegetation will be restored to substantially the same condition as existed prior to such disturbance; that wells will be capped with locked covers; and that my property will be returned to substantially the same condition upon completion of the sampling.

Property Address: Reclaimed Metals Goodyear Plant  
1393 South Reems Road  
Goodyear, Arizona

Signature of Owner/Occupant (all joint owners must sign):

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

Proposed

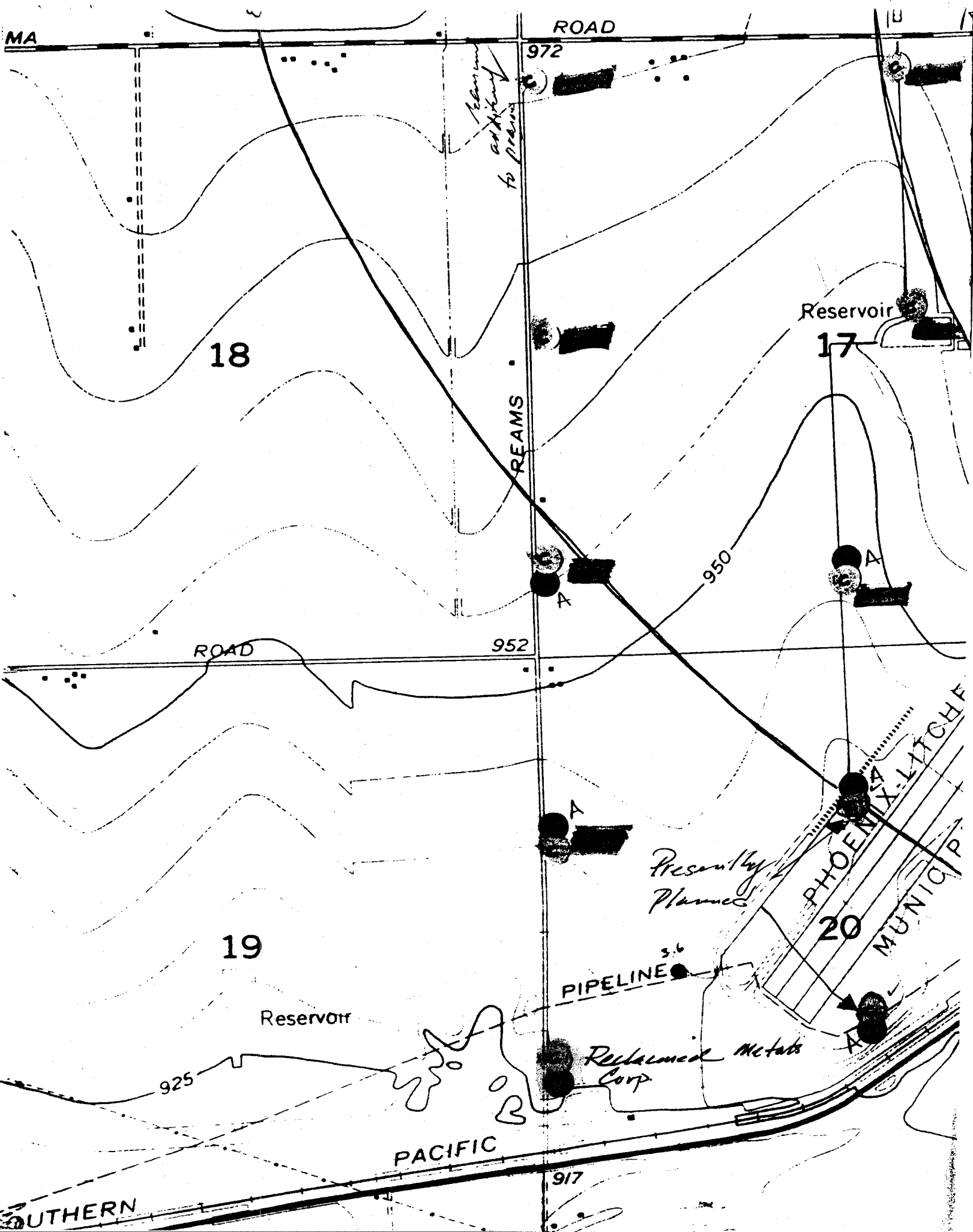
Locations  
under present  
plan.

Proposed Location / Reclaimed Metals Corp

C " Zone ~ 200'

A " Zone ~ 150'

C Wells under this  
Program





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

215 Fremont Street  
San Francisco, Ca. 94105

RECEIVED  
FEB - 9 1987  
CH2M HILL/PHOENIX

February 3, 1987

Mr. Larry Hall  
Broker  
The Val Group  
23150 N. Pima Road  
Scottsdale, AZ 85255

Re: Phoenix-Goodyear Airport Area Superfund Site

Dear Mr. Hall:

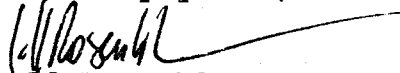
The Phoenix-Goodyear Airport area (PGA) site was placed on the Environmental Protection Agency's National Priorities List in September, 1983. Sites on this list are eligible for funding by the federal Superfund program to determine the extent of contamination from hazardous substances and implement remedial actions necessary to protect human health and the environment. Improper handling of chemical solvents has resulted in ground water contamination that has spread almost three miles to the west of the airport. The property you have recently purchased directly west of the airport is within the boundaries of our study area. We hereby ask your cooperation in granting us access to this area for investigative purposes.

We are presently involved in an investigation to determine the extent of ground water contamination and the sources of that contamination. Current field work to track the ground water plume includes the testing of existing ground water wells and installing new ground water monitoring wells in the study area. We currently are planning to install up to ten wells in the area bounded by Yuma, Broadway, Reams and Bullard Roads over the course of the next six months.

If you voluntarily grant us access, we will work with you to determine the locations of the new ground water monitoring wells. In addition, we would like the opportunity to test any existing wells that you may have acquired. This agency is authorized to require access to determine the location of hazardous substances by Section 104 (e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S. Code §9604, as amended by the Superfund Amendments and Reauthorization Act of 1986.

We would be happy to discuss our plans with you. Please call us at your earliest convenience to discuss the pending field activities. Please address all correspondence to Jeff Rosenbloom, T-4-2, at the address on our letterhead. If you have any questions, please call me at (415) 974-9565.

Sincerely yours,

A handwritten signature in dark ink, appearing to read 'J. Rosenbloom', with a long horizontal flourish extending to the right.

Jeff Rosenbloom  
Remedial Project Manager

cc: Anders, ADHS  
Briggs, ADWR  
Gerst, WH548  
Lucero, CH2M Hill  
Mock, CH2M Hill  
Vieregg, OAG  
Walker, ORC



## TELEPHONE CONVERSATION RECORD

Date 1/12/87 Time 2:00 <sup>a.m.</sup>~~p.m.~~ Phone No. 1-585-3818 Project No. W63600.FQ

☒ To (A) Larry Hall, VAL Group

☐ From (B) \_\_\_\_\_

Subject MW ACCESS

VAL Group purchased ~~land~~ Ronald Wood's land.

Not in at 2pm - left message

not in 1/14/87 - " "

" 1/20/87 - " "



BY \_\_\_\_\_





Engineers  
Planners  
Economists  
Scientists

December 30, 1986

W63600.FQ

Ronald R. and Jewel A. Wood  
P. O. Box 1118  
Avondale, AZ 85323

*- Now owned by VAL Group*

Subject: Permission to Access Property for Investigation  
Purposes

Dear Mr. and Mrs. Wood:

CH2M HILL, Inc., under contract to the U.S. Environmental Protection Agency (EPA), is conducting an investigation in the vicinity of Phoenix-Goodyear Airport, Goodyear, Arizona. The investigation is being conducted under the Superfund Program. It is intended to determine the extent and degree of soil and ground water contamination, and to determine the feasibility of various clean-up options.

We request access to the following parcels of land:

Parcels 500-7-014C, 015, 016C, 017D  
T1N, R1W, Sec. 17

Several types of tasks will be performed in conjunction with the investigation. The following sampling techniques will be used:

- o Groundwater monitoring well drilling - A field team will work with a drilling crew and drilling rig to install monitoring wells 100 to 350 feet in depth from January through March, 1987. The wells will be covered with locked covers. The EPA will be responsible for removal or plugging of wells at the end of the study. The well locations can be modified to accommodate your present and planned use of the land.
- o Groundwater monitoring well sampling - A field person or team will remove water from the well and collect a small sample (about one gallon) for laboratory analysis during the months of January through December, 1987.



Page Two  
Mr. and Mrs. Wood  
W63600.FQ  
December 30, 1986

- o Surveying - A survey crew will survey the sites during March, 1987.

We have enclosed a self-addressed envelope with the permission form. Please review, sign and mail this form at your earliest convenience. Because of the time schedule for this program, we ask that you call us, at (602) 893-6155, if you will be unable to return the completed form by January 15, 1987, or if you have any questions. We will provide you with the final sampling results upon request.

We greatly appreciate your cooperation.

Sincerely,

A handwritten signature in cursive script that reads "Peter A. Mock".

Peter A. Mock  
Hydrogeologist

PAM/lis

Enclosures: Permission Form/Self-Addressed Envelope



Engineers  
Planners  
Economists  
Scientists

December 1, 1986

W63600.FQ

City of Phoenix  
Attn: Mr. Larry Priest  
General Aviation Superintendent  
Administration Building  
Phoenix-Goodyear Municipal Airport  
Goodyear, Arizona 85338

Dear Mr. Priest:

Subject: Permission to Access Property for Investigation  
Purposes

CH2M HILL, Inc. under contract to the U.S. Environmental Protection Agency (EPA) is conducting an investigation in the vicinity of Phoenix-Goodyear Airport, Goodyear, Arizona. The investigation is being conducted under the Superfund Program. As you well know it is intended to determine the extent and degree of soil and ground water contamination, and to determine the feasibility of various clean-up options.

We are requesting access to the following parcels of land:

Parcels 500-7-006D, 006G, 006H  
T1N, R1W, Sec. 16, 20, and 21

Several types of tasks will be performed in conjunction with the investigation. The following sampling techniques will be used:

- o Groundwater monitoring well drilling - A field team will work with a drilling crew and drilling rig to install monitoring wells 100 to 350 feet in depth from January through March 1987. The wells will be covered with locked covers. The EPA will be responsible for removal or plugging of wells at the end of the study.
- o Groundwater monitoring well sampling - A field person or team will remove water from the well and collect a small sample (about one gallon) for laboratory analysis during the months of January through December 1987.

Page 2  
Mr. Priest  
W63600.FQ  
December 1, 1986

- o Surveying - A survey crew will survey the sites during March, 1986.

We have enclosed a self-addressed envelope with the permission form. Please review, sign and mail this form at your earliest convenience. Because of the time schedule for this program, we ask that you call me at (602) 893-6155 if you will be unable to return the completed form by December 15, 1986 or have any questions.

We would like to schedule a meeting with you to discuss the proposed well locations. One line of wells will be placed adjacent to some of the wells installed by Goodyear Aerospace Corporation west of the Executive Terminal. A second ring of wells will be placed 1/2 to 1 mile to the west of the Executive Terminal. We will provide you with the final sampling results upon request.

We greatly appreciate your cooperation. Thanks for the time and important contributions you have made to the Project.

Sincerely,



Peter A. Mock  
Hydrogeologist

PERMISSION FOR ACCESS TO PROPERTIES CONCERNING  
THE PHOENIX-GOODYEAR AIRPORT HAZARDOUS WASTE SITE  
GOODYEAR, ARIZONA

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Property Address: \_\_\_\_\_

Signature of Owner/Occupant (all joint owners must sign):

Larry D. Priest  
(Signature) Report Manager

Dec 8, 1986  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)





## DAILY INSPECTION DIARY

PROJECT NO. W63600.FL

(1) DAY: FRIDAY DATE: 08/15/86 WORK PERIOD 5 <sup>A.M.</sup> P.M. TO      A.M. P.M. REPORT NO.       
 WEATHER Clear Hot TEMP. MAX 108 °F: MIN 75 °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

2 Welenco

1 ESI

Visitors = Myself (Peter Moch, K&H HILL, Jim Davis / MRA & Dave Bedea / COE)

I visited 7AM to 11AM

(3) MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.
<u>1</u>	<u>Logging Truck</u>		
<u>1</u>	<u>Pumping Rig</u>		

(4) WORK ACCOMPLISHED TODAY:

TV log run yesterday. GAC #3  
Ran caliper, Temp., Y-neutron, spinner, E.C. logs in  
open hole. Plans for static wq depth sampling.

HAV reading 0.8 ppm over open hole.

Based on consistent anomalies in the logs,  
depth sampling will be conducted at 130', 170', 200'

Static Depth sampling scheduled 2PM-6PM today

Pump set & tested - Sunday 8/17

Pumping Logging scheduled 5AM-8AM Monday 8/18  
" Sampling " 8AM - ? Monday 8/18

(5)

Peter A. Moch  
 RESIDENT ENGINEER'S SIGNATURE

8/15/86  
 DATE



## DAILY INSPECTION DIARY

PROJECT NO.

(1) DAY: SUNDAY DATE: 08/17/86 WORK PERIOD 5 <sup>A.M.</sup><sub>P.M.</sub> TO <sup>A.M.</sup><sub>P.M.</sub> REPORT NO.WEATHER P. Cloudy TEMP. MAX 103°F: MIN °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

4 Layne western  
1 ESI

(3) MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

HNU reading = 1.0 ppm  
Dynamic spinner Log shows steps at 170, 220

(5)

Peter A. Mork  
RESIDENT ENGINEER'S SIGNATURE

8/17/86  
DATE





## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN(1) DAY: WEDNESDAY DATE: 10/01/86 WORK PERIOD 9 <sup>A.M.</sup> ~~P.M.~~ TO        <sup>A.M.</sup> ~~P.M.~~ REPORT NO.       WEATHER P. Cloudy TEMP. MAX 90 °F: MIN 65 °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

Many Layne Western4 Wellenco1 ESI1 GAC

MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Started logging GAC #4TV log - clear section between murky sections- top of perforations (inflow spot?) WL = 59'169' - 205' clear, 205' - 273' cloudy TD 273'Static geologging - Temp. - Flat <sup>little</sup> gradient) Aips @ 170', 100'Caliper - lots of incrustation (up to 5 inches)HNU reading over borehole = 0.8 ppmNeutron - Sands (C) 80' - 230' (B) Good clay(A) 100' - 115' 170' - 115' 85' - 95'Good snags on neutronGamma - only snag - 85' - 95'Gamma generally flatEC - sharp snag at 169'general deep top of parts above parts less sharp snag at 100' - 90'Samples: 250', 170', 130', 80' - anomaly (Top Down)Will remove air line, equip w/ pump.Pump @ 1100 gpm, intake at 110', 5 am - 9 am Monday MorningSamI said OKSample Blanks - no longer use 10' cylinders- fill tool with plant water (R/O & Carbon filt)empty tool into 40 ml VOA bottles

(5)

RESIDENT ENGINEER'S SIGNATURE

DATE

Peter H. Moch10/1/86 REV 9/83 FORM 21A



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN

(1) DAY: MONDAY DATE: 10/6/86 WORK PERIOD 5 <sup>A.M.</sup> P.M. TO <sup>A.M.</sup> P.M. REPORT NO.

WEATHER CLEAR TEMP. MAX 95 °F: MIN 75 °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

2 Wellenoo  
4 Layne Western  
1 MSA  
1 ESI

(3) MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Pumped GAC #4 5 am to 9 am @ 1000 gpm  $\pm 10\%$   
Ran Dynamic geophysical logging starting at 9 am

Repeats  
on  
everything

Strong Break in temperature at 170'  
Weak change in temperature at 255'

Conductivity changes at same points - subtle

Spinner Flowmeter - big break at 175'  
Weak break at 255'

Samples: 150', 175', 210', 255' - try for 260' & 150'  
sample at 150' taken 2 pm

Next well: GAC #2 - earliest possible non-pumping logging  
will be Oct. 20

(5)

Peter A. Mork  
RESIDENT ENGINEER'S SIGNATURE

10/6/86  
DATE



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN

(1) DAY: WEDNESDAY DATE: 10/22/86 WORK PERIOD 7 <sup>A.M.</sup> P.M. TO 5 <sup>A.M.</sup> P.M. REPORT NO. \_\_\_\_\_  
 WEATHER P. Cloudy TEMP. MAX 90 °F: MIN 75 °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

2 Wellenco

1 Lagne-Western

1 CSI

MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Ran Temp., E.C., caliper and Gamma-Neutron Logs under non-pumping conditions 8AM - 10AM

Temp shift at 170' strong  
EC shift at 125' strong, 170' slight

TD = 240' (280' - 330' filled in since '40's)  
perfs 195' - 219', 250' - 280'

HNU reading at breathing level = 0.5 ppm  
started 11 AM  
Samples: 120' - above EC shift

160' - between EC & temp shifts  
above big temp shift

200' - top of sect. of perfs - below temp shifts

260' - lower perfs

Dynamic logging: Wednesday Oct. 29<sup>th</sup> (much discharge piping to do)

GAC #1 static logging: 1<sup>st</sup> week of November

(5)

Peter A. Moch  
 RESIDENT ENGINEER'S SIGNATURE

10/22/86  
 DATE



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN

(1) DAY: WEDNESDAY DATE: 10/24/86 WORK PERIOD 5<sup>A.M.</sup> P.M. TO 5<sup>A.M.</sup> P.M. REPORT NO.

WEATHER CLEAR TEMP. MAX 95°F: MIN 75°F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

3 Layne Western  
1 ESI  
3 Wellenco

MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Pumped GAC No. 2 5am to 9am before beginning  
EC logging 9am - 11:15am 1000 gpm steady  
ran EC several times to verify major beds shifts  
at 200' & 250'

HNU reading at well opening = 0.6 ppm

Visitors: Jim Davis & Ron DeWitt (M&A)

Temperature shift strong 200' - several other inflections

Spinner Flowmeter Survey run 12:30 - 1:30 pm shift - 215'

Sample Depths: 160' Flow shift, EC shift  
205' Flow shift, Temp shift  
240' Temp shift, EC shift  
255' Temp shift  
270'

Started sampling 1:30 pm

clean-up procedures very thorough  
GAC took pictures (slides) of operations for us \*

Start next well (GAC #1) 11/10/86 static logging  
check on brine ing then \*

(5)

Peter A. Mirek  
RESIDENT ENGINEER'S SIGNATURE

10/29/86  
DATE



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN

(1) DAY: MONDAY DATE: 11/11/06 WORK PERIOD 2 <sup>A.M.</sup> P.M. TO 9 <sup>A.M.</sup> P.M. REPORT NO. \_\_\_\_\_  
WEATHER Clear TEMP. MAX 85°F: MIN 55°F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:


(3) MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Dilled pump on OAC #1. Logging contractor postponed  
until tomorrow

(5)

Peter A. Mock  
RESIDENT ENGINEER'S SIGNATURE

11/10/06  
DATE



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN

(1) DAY: TUESDAY DATE: 11/11/86 WORK PERIOD 8 A.M. TO P.M. REPORT NO.

WEATHER P. cloudy TEMP. MAX 80 °F: MIN 55 °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

2 Wellenco (Gary Corbell)  
1 ESI (Annette Ponds)

(3)	MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE		
	NO.	DESCRIPTION	SIZE/CAPACITY HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Static logging GAC #21

TV log indicates 10" 0-324'

Open hole 324'-353'

Wash out area 339'

Water cleaver 90'-195'

Black casing encrustation 112'-195'

Encrustation heavier 205'-260'

" heavier still 260'-324'

Driller's log said parts were 210-220', 260-280' - crusted shut now?

Temperature log: Large shift 180'-250'

EC log: Large shift 100'-170'

caliper log:

Samples 85' above shifts

150' in shifts

230' below shifts

340' ~~320'~~ - open holePump all ~~the~~ tomorrow, Dynamic Log tomorrow night

(5)

Peter A. Mock  
RESIDENT ENGINEER'S SIGNATURE

11/11/86  
DATE



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN(1) DAY: WEDNESDAY DATE: 11/12/96 WORK PERIOD 7 <sup>A.M.</sup> P.M. TO 7 <sup>A.M.</sup> P.M. REPORT NO. \_\_\_\_\_WEATHER Clear TEMP. MAX 60 °F: MIN 55 °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

3 Layne Western

MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Pump installed in GAC#1 - Pumping @ 250 gpm started at 10:30 AM  
will pump for 8 hours, log & sample tonight late.

(5)

Peter A. Mark  
RESIDENT ENGINEER'S SIGNATURE

11/12/96  
DATE



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN(1) DAY: TUESDAY DATE: 10/23/86 WORK PERIOD 7 <sup>A.M.</sup> P.M. TO        <sup>P.M.</sup> REPORT NO.       WEATHER Clear TEMP. MAX 95 °F: MIN 75 °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

4 Stewart Bros George Maldonado (in charge)  
Mike Mathieson (DRM)

(3) MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE

NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.
	<u>2500 size drill rig (big)</u>		

(4) WORK ACCOMPLISHED TODAY:

Drilling MW-10 (deep upgrad. - by MW-1)  
down to 220' - will TD at <sup>360</sup> today & log the hole  
Dug pits for mud circSandy clay 0-10  
sand 10-30 medium  
gr clay 30-45  
clayey sand 45-70  
gravel 70-85 - very clean - well sorted  
grav. clay 85-110  
clay 110-~~220~~ 190  
silty sand 190-230 +HNU reading over return mud stream = 0.6 ppm

(5)

RESIDENT ENGINEER'S SIGNATURE

DATE





## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN

(1) DAY: WEDNESDAY DATE: 10/22/86 WORK PERIOD 7<sup>A.M.</sup> P.M. TO 7<sup>A.M.</sup> P.M. REPORT NO.

WEATHER CLEAR TEMP. MAX 95°F: MIN 75°F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

4 Stewart Bros.

1 Dames &amp; Moore (mileem)

(3) MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Set casing on MW-10

TD at 360' subunit #7 (transition to mfo) at 348'-350'  
caved to 345' set 50' of screen 295' - 345'  
6" casing in 12" hole - plenty of room for  
gravel pack & cement

All apparently according to specs.

(5)

Peter A. Morsch  
RESIDENT ENGINEER'S SIGNATURE

10/22/86  
DATE



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PU

(1) DAY: THURSDAY DATE: 11/06/86 WORK PERIOD 7 <sup>A.M.</sup> <sub>P.M.</sub> TO 7 <sup>A.M.</sup> <sub>P.M.</sub> REPORT NO. \_\_\_\_\_  
WEATHER P. Cloudy TEMP. MAX 85 °F: MIN 65 °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

Stewart Bros.

(3)

MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Last well cementing complete.  
Crews gone when I arrived - waiting for cement to cure.

(5)

Peter A. Mook  
RESIDENT ENGINEER'S SIGNATURE

11/06/86  
DATE



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN(1) DAY: WEDNESDAY DATE: 10/15/86 WORK PERIOD 7 <sup>A.M.</sup> <sub>P.M.</sub> TO 7 <sup>A.M.</sup> <sub>P.M.</sub> REPORT NO. \_\_\_\_\_WEATHER Clear TEMP. MAX 90 °F: MIN 75 °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

4 Stewart Bros.2 ESI

MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.
1	Failing 1500, w/ mud pumps, etc		

(4) WORK ACCOMPLISHED TODAY:

Finished drilling & set screen in 4<sup>th</sup> of 5 on-site sub-unit A  
 4" monitoring wells, apparently in accordance w/ QAPP & specs  
 Procedure: ① drill 5" pilot hole, fill bottom unused portion w/ bentonite

② ream to 10"

③ Set 20' or 30' of Johnson 4" PVC well screen

all but 2 wells have 5' of blank below screen

+ all have cap on bottom

④ Set gravel back &amp; bentonite seal

⑤ develop the well: air surging, water surging  
to get reasonable production

⑥ Grout to surface

⑦ push 21' 7" steel casing into grout to 20' depth

Notes: Clay cady &amp; B. Field (owner) observed yesterday

Helper makes piles of cutting from each 5' interval on

sidewalk: effective display for geologist to log

Gravel sloughing from 50'-65' interval big problem

HNV reading at breathing zone

Next: 5<sup>th</sup> on-site well, then 9 airport wells, thenback or concurrently have other contractor do 6 piezometer  
at sump

Peter A. Muck  
 RESIDENT ENGINEER'S SIGNATURE

10/15/86  
 DATE

(5)



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN

(1) DAY: WEDNESDAY DATE: 10/22/86 WORK PERIOD 7 <sup>A.M.</sup><sub>P.M.</sub> TO 5 <sup>A.M.</sup><sub>P.M.</sub> REPORT NO.  
WEATHER P. Cloudy TEMP. MAX 90 °F: MIN 75 °F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

4 - Stewart Bros.  
1 - ESI

MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Set Drilled & set casing on last well on G&E prop. Gmw-8

All apparently according to specs

Sorted Gravel 50' - 65', <sup>Sands</sup> ~~Clays~~ 65' - 80', Sorted Sand 80' - 100' +

Reamed to 70' set perts ~~65' - 70'~~ <sup>70' - 80'</sup> 40' - 60'  
to get wt unit

Going to Airport to start by Tomorrow morning

Lee S. (ESI) is taking great care to make sure the wells are all developed. Most do 1/2 gpm after completion & 10 gpm + after air & water surging in increasing steps.

(5)

Peter A. Worch  
RESIDENT ENGINEER'S SIGNATURE

10/22/86  
DATE



## DAILY INSPECTION DIARY

PROJECT NO. WB3600.PN

(1) DAY: TUESDAY DATE: 10 20 86 WORK PERIOD 7 <sup>A.M.</sup><sub>P.M.</sub> TO 5 <sup>A.M.</sup><sub>P.M.</sub> REPORT NO. \_\_\_\_\_  
 WEATHER CLEAR TEMP. MAX 95°F: MIN 75°F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

4 Stewart Bros.

1 ESI

(3)

MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

16GMW-9 - next to building #60 (sump inside is 15' deep)  
developed 7am to 2pm - finished cementing 2pm-5pm

Lees. is enforcing very rigid development standards -

All apparently conducted according to specs

changed locations of two southernmost wells of  
the first "EPA" ring 800' to northeast to  
pick up source areas. Since this preserves our  
ability to ~~look~~ look at overall plume - I authorized  
the change - all other locations as spec'd.

Lees. ordered stop to using SH1200L drilling  
additive "because they don't need it".

(5)

Peter A. Moch  
 RESIDENT ENGINEER'S SIGNATURE

10/20/86  
 DATE



## DAILY INSPECTION DIARY

PROJECT NO.

W63600.PN

(1) DAY: WEDNESDAY DATE: 10/29/86 WORK PERIOD 7 <sup>A.M.</sup>P.M. TO 7 <sup>A.M.</sup>P.M. REPORT NO.

WEATHER CLEAR TEMP. MAX 95°F: MIN 75°F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

3 Stewart Bros  
1 ESI (Leeschmelle)

(3) MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Started & finished 16 GWH-10 NW of exee term. & school hangers  
across from GAC #4  
air lift developing at 25 gpm ~~at 25 gpm~~ started 11:45 am  
HNU reading - development air stream = 1 ppm  
40' - 50' sand  
50' - 60' gravels  
65' + clays 60' - 65' clayey gravels  
screen 55' - 65'

(5)

Peter R. Mord  
RESIDENT ENGINEER'S SIGNATURE

10/29/86  
DATE



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN(1) DAY: THURSDAY DATE: 11 06 86 WORK PERIOD 7 <sup>A.M.</sup> P.M. TO 7 <sup>A.M.</sup> P.M. REPORT NO. \_\_\_\_\_WEATHER P. Windy TEMP. MAX 85 °F: MIN 65 °F: PRECIPITATION None

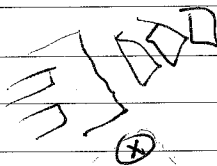
(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

4 Stewart Bros (Randy Stewart)1 ESI (Pat G.)

(3) MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

TD at 110' on well between end of runway and corner of  
"A" Ave & Fourth.



Finished a well yesterday  
Lithology remains consistent  
Started this ten-day stretch Tues Nov. 4<sup>th</sup>  
7 wells to go after this one  
Pumps installed next week  
Locking covers being installed now on completed wells

All being conducted apparently according to specs

Will continue to develop for 6-8 hours according to PAT/ESI

(5)

Peter A. Moch  
RESIDENT ENGINEER'S SIGNATURE

11/6/86  
DATE



## DAILY INSPECTION DIARY

PROJECT NO. W63600.PN

(1) DAY: WEDNESDAY DATE: 11/12/80 WORK PERIOD 7<sup>AM</sup> TO 7<sup>AM</sup> REPORT NO.  
WEATHER CLEAR TEMP. MAX 80°F: MIN 55°F: PRECIPITATION None

(2) NUMBER AND CLASS OF PERSONNEL EMPLOYED:

3 Stewart Bros.  
1 ESI (Pat G.)  
1 Corps of Engineers (Dave G)

MAJOR EQUIPMENT ON PROJECT AND AMOUNT OF USE			
NO.	DESCRIPTION	SIZE/CAPACITY	HRS. OPER.

(4) WORK ACCOMPLISHED TODAY:

Drilled & completed, Developed well across Runway from the control tower. All work apparently according to specs. Lithology: 0 - 15' sandy gravels  
15' - 35' sandy clay  
35' - 50' coarsening upwards sequence of  
50' - 75' gravels  
                    └ coarse sands  
75' - 115' - sandy gravelly clay  
Screened @ 50' - 75'

(5)

RESIDENT ENGINEER'S SIGNATURE

DATE

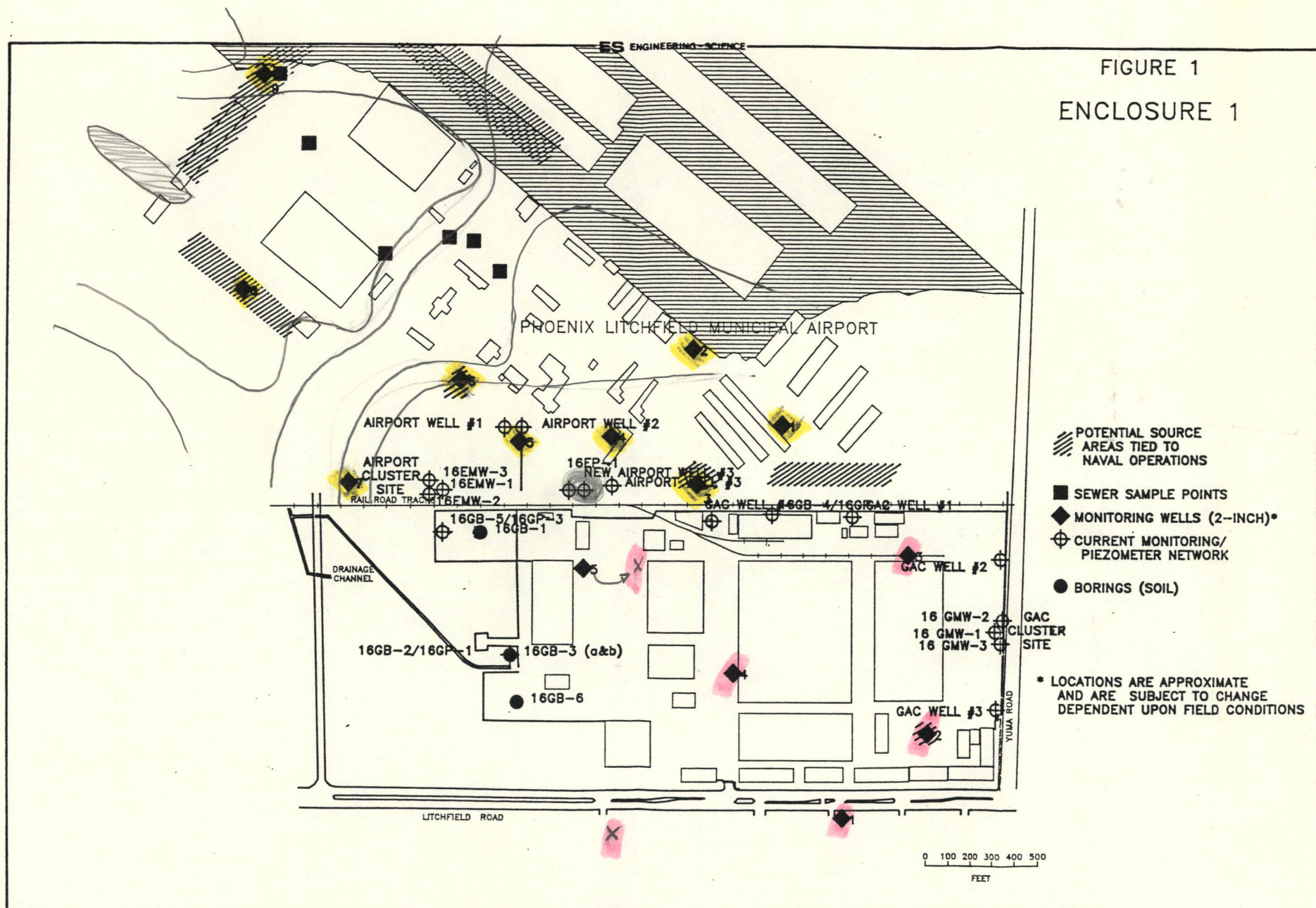
(8.1)

REV 9/83 FORM 21A



FIGURE 1

ENCLOSURE 1





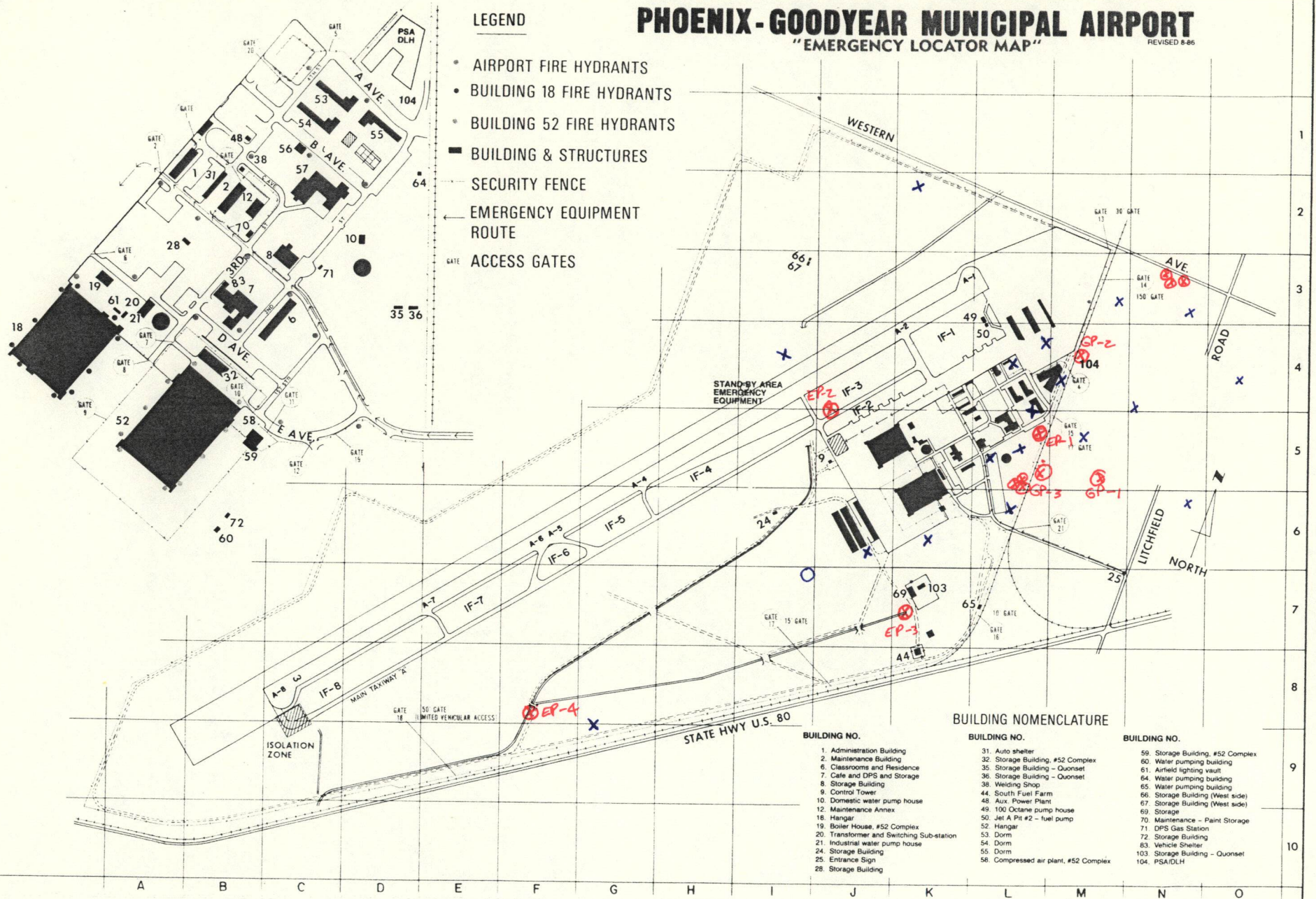
# PHOENIX-GOODYEAR MUNICIPAL AIRPORT

"EMERGENCY LOCATOR MAP"

REVISED 8-86

## LEGEND

- AIRPORT FIRE HYDRANTS
- BUILDING 18 FIRE HYDRANTS
- BUILDING 52 FIRE HYDRANTS
- BUILDING & STRUCTURES
- SECURITY FENCE
- ← EMERGENCY EQUIPMENT ROUTE
- GATE ACCESS GATES



### BUILDING NO.

1. Administration Building
2. Maintenance Building
3. Classrooms and Residence
4. Cafe and DPS and Storage
5. Storage Building
6. Control Tower
7. Domestic water pump house
8. Maintenance Annex
9. Hangar
10. Boiler House, #52 Complex
11. Transformer and Switching Sub-station
12. Industrial water pump house
13. Storage Building
14. Entrance Sign
15. Storage Building

### BUILDING NOMENCLATURE

#### BUILDING NO.

31. Auto shelter
32. Storage Building, #52 Complex
33. Storage Building - Quonset
34. Storage Building - Quonset
35. Welding Shop
36. South Fuel Farm
37. Aux. Power Plant
38. 100 Octane pump house
39. Jet A Pit #2 - fuel pump
40. Hangar
41. Dorm
42. Dorm
43. Dorm
44. Compressed air plant, #52 Complex

#### BUILDING NO.

59. Storage Building, #52 Complex
60. Water pumping building
61. Arfield lighting vault
62. Water pumping building
63. Water pumping building
64. Storage Building (West side)
65. Storage Building (West side)
66. Storage
67. Maintenance - Paint Storage
68. DPS Gas Station
69. Storage Building
70. Vehicle Shelter
71. Storage Building - Quonset
72. PSA/DLH

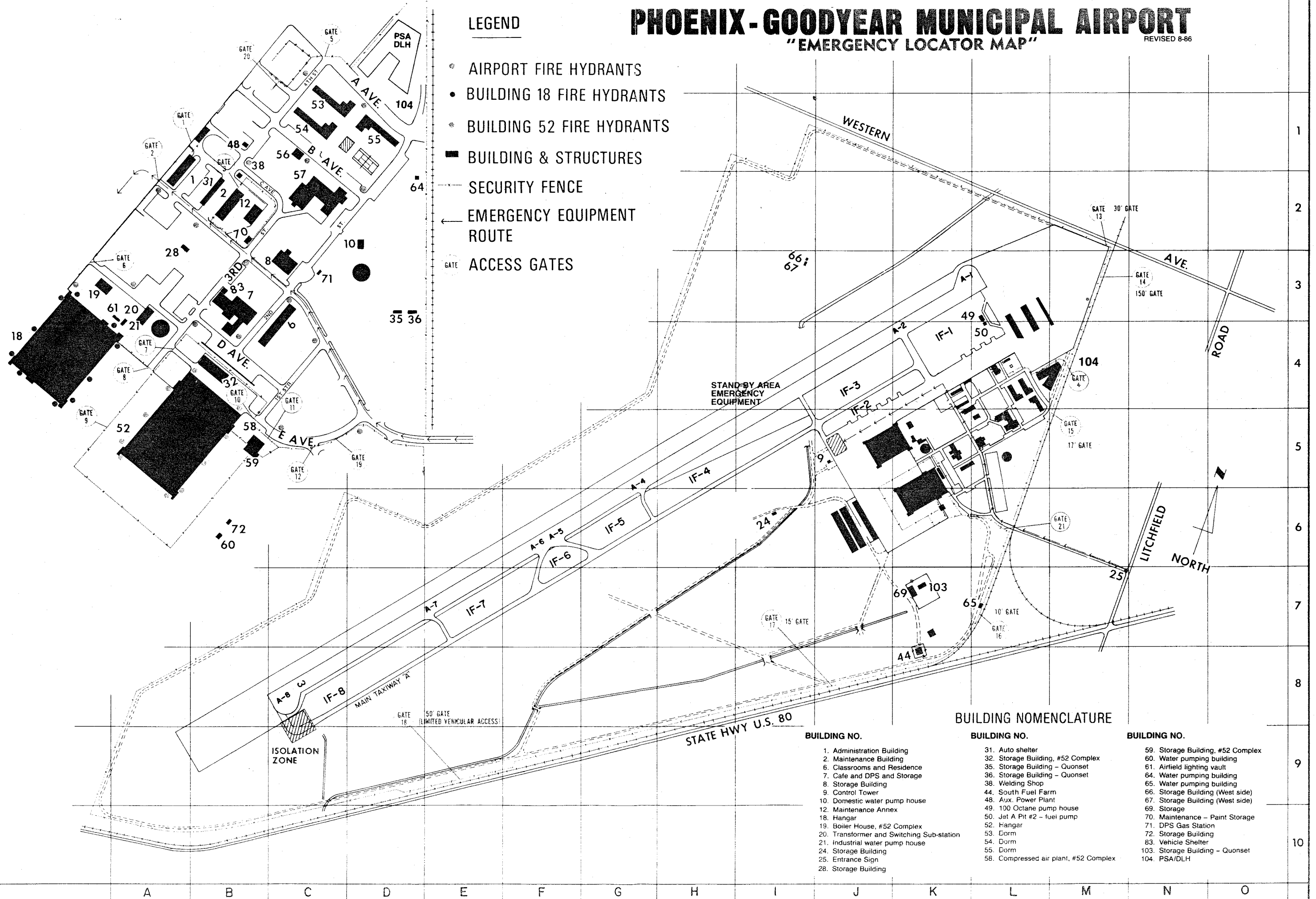
# PHOENIX - GOODYEAR MUNICIPAL AIRPORT

"EMERGENCY LOCATOR MAP"

REVISED 8-86

## LEGEND

- AIRPORT FIRE HYDRANTS
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## BUILDING NOMENCLATURE

### BUILDING NO.

1. Administration Building
2. Maintenance Building
6. Classrooms and Residence
7. Cafe and DPS and Storage
8. Storage Building
9. Control Tower
10. Domestic water pump house
12. Maintenance Annex
18. Hangar
19. Boiler House, #52 Complex
20. Transformer and Switching Sub-station
21. Industrial water pump house
24. Storage Building
25. Entrance Sign
28. Storage Building

### BUILDING NO.

31. Auto shelter
32. Storage Building, #52 Complex
35. Storage Building - Quonset
36. Storage Building - Quonset
38. Welding Shop
44. South Fuel Farm
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49. 100 Octane pump house
50. Jet A Pit #2 - fuel pump
52. Hangar
53. Dorm
54. Dorm
55. Dorm
58. Compressed air plant, #52 Complex

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59. Storage Building, #52 Complex
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69. Storage
70. Maintenance - Paint Storage
71. DPS Gas Station
72. Storage Building
83. Vehicle Shelter
103. Storage Building - Quonset
104. PSA/DLH

LARGE FORMAT

OS1 to OS6

SCAN THIS PAGE



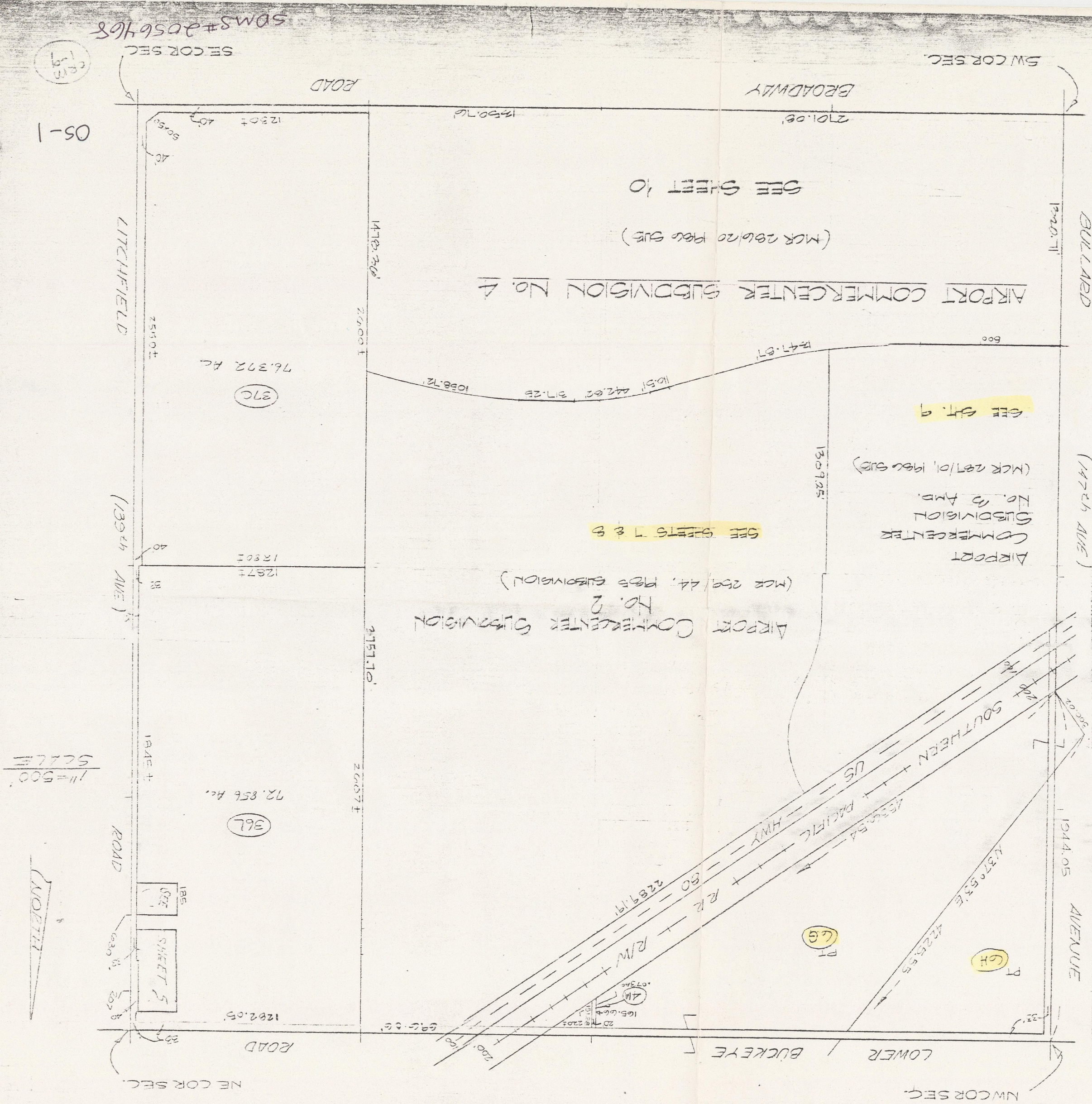
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BOOK 500

MAP SHEET 4

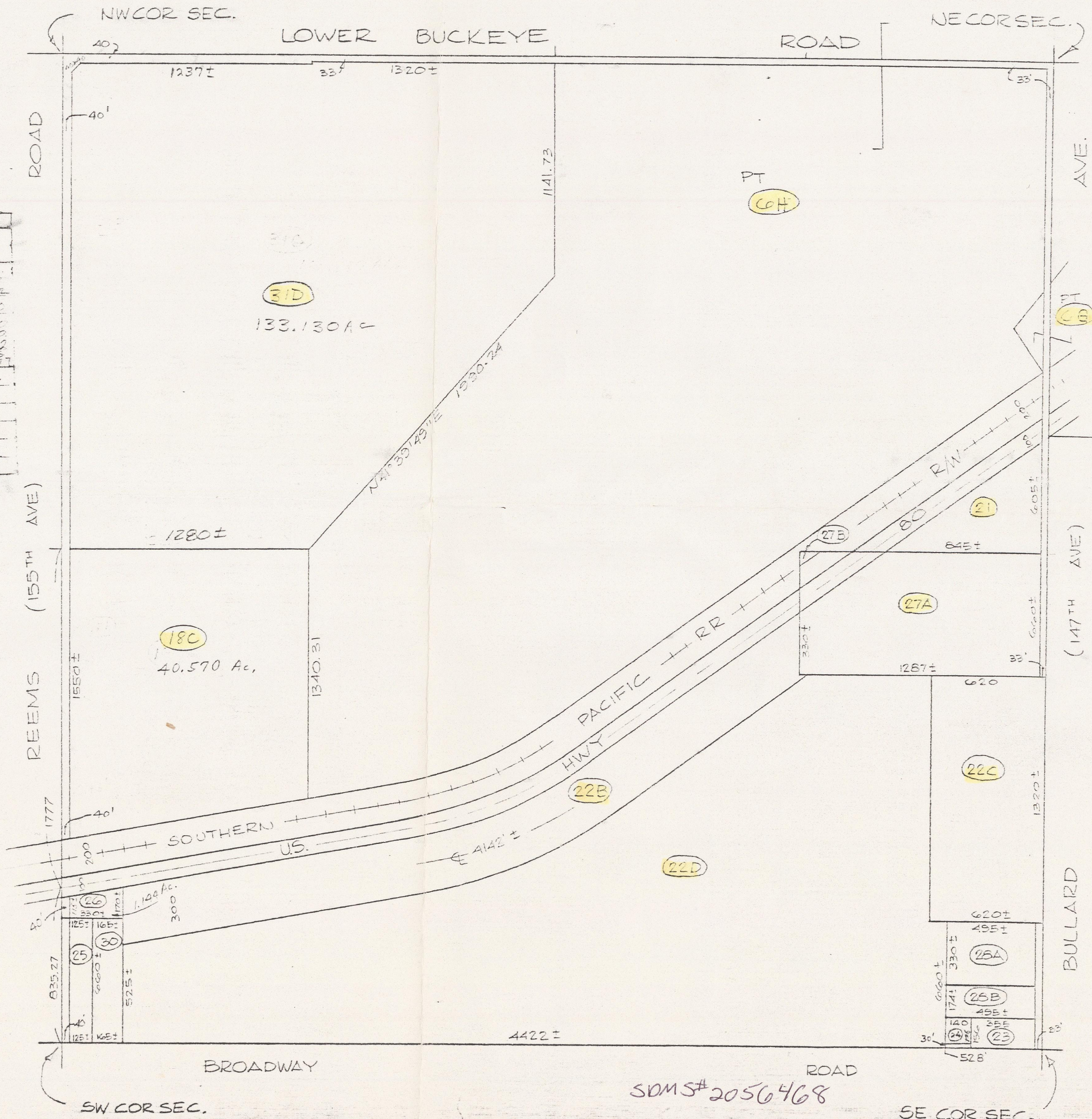
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Date	Wks	Is	Drawn	Prizes
5-28-84	45	44.5	#109	2070
5-28-84	45	44.5	1000 YEARS	2071
5-28-84	45	44.5	1000 YEARS	2072
5-28-84	45	44.5	1000 YEARS	2073
5-28-84	45	44.5	1000 YEARS	2074
5-28-84	45	44.5	1000 YEARS	2075
5-28-84	45	44.5	1000 YEARS	2076
5-28-84	45	44.5	1000 YEARS	2077
5-28-84	45	44.5	1000 YEARS	2078
5-28-84	45	44.5	1000 YEARS	2079
5-28-84	45	44.5	1000 YEARS	2080
5-28-84	45	44.5	1000 YEARS	2081
5-28-84	45	44.5	1000 YEARS	2082
5-28-84	45	44.5	1000 YEARS	2083
5-28-84	45	44.5	1000 YEARS	2084
5-28-84	45	44.5	1000 YEARS	2085
5-28-84	45	44.5	1000 YEARS	2086
5-28-84	45	44.5	1000 YEARS	2087
5-28-84	45	44.5	1000 YEARS	2088
5-28-84	45	44.5	1000 YEARS	2089
5-28-84	45	44.5	1000 YEARS	2090
5-28-84	45	44.5	1000 YEARS	2091
5-28-84	45	44.5	1000 YEARS	2092
5-28-84	45	44.5	1000 YEARS	2093
5-28-84	45	44.5	1000 YEARS	2094
5-28-84	45	44.5	1000 YEARS	2095
5-28-84	45	44.5	1000 YEARS	2096
5-28-84	45	44.5	1000 YEARS	2097
5-28-84	45	44.5	1000 YEARS	2098
5-28-84	45	44.5	1000 YEARS	2099
5-28-84	45	44.5	1000 YEARS	2100





VARICOPA COUNTY ASSESSORS OFFICE					
SCALE 1" = 500'					
REVISIONS:					
Date	Wks	To	Doc#	Drawn	Checked
8-2-76	24	PLAT	11762-1533	W.D. GAD	
		SPLIT	11762-1533	2-72-2082	
1-9-77	18	18A, B	ONE 1/2	ANNEX	4-8-77
1-19-77	31A, 31B, C	ONE 1/2	ANNEX	4-8-77	
5-78	31B, C	31D	GOODYEAR	2-7-78	
7-20-78	26	SPLIT	13287-1448	2-7-78	
1-18-83	18A, B	18C	ANNEX	1-8-83	



1" = 500' SCALE

OS-2

SDMS# 2056468

CRV 1-9



NW COR. SEC.

LINE COR. SEC

REEMS RD  
- 155TH AVE. -

-147<sup>TH</sup> AVE. -  
-BULLARD AVE. -

2078.19

MARICOPA COUNTY ASSESSORS OFFICE

SCALE 1" = 500'

REVISIONS:

Date	Wks	IC	DOCKETS	IN	OUT
1-19-77	10	10A;B	ANNEX, ORD. 92	2072	2070
1-19-77	14	14A;B	ANNEX, ORD. 92	2072	2070
1-19-77	16	16A;B	ANNEX, ORD. 92	2072	2070
1-19-77	17A	17B;C	ANNEX, ORD. 92	2072	2070
1-18-83	10A, B	10C	GOODYEAR ORD. #135	N.F.	—
1-18-83	14A, B	14C	GOODYEAR ORD. #135	N.F.	—
1-18-83	16A, E	16C	GOODYEAR ORD. #135	N.F.	—
1-18-83	17E, C	17D	GOODYEAR ORD. #135	N.F.	—

05-3

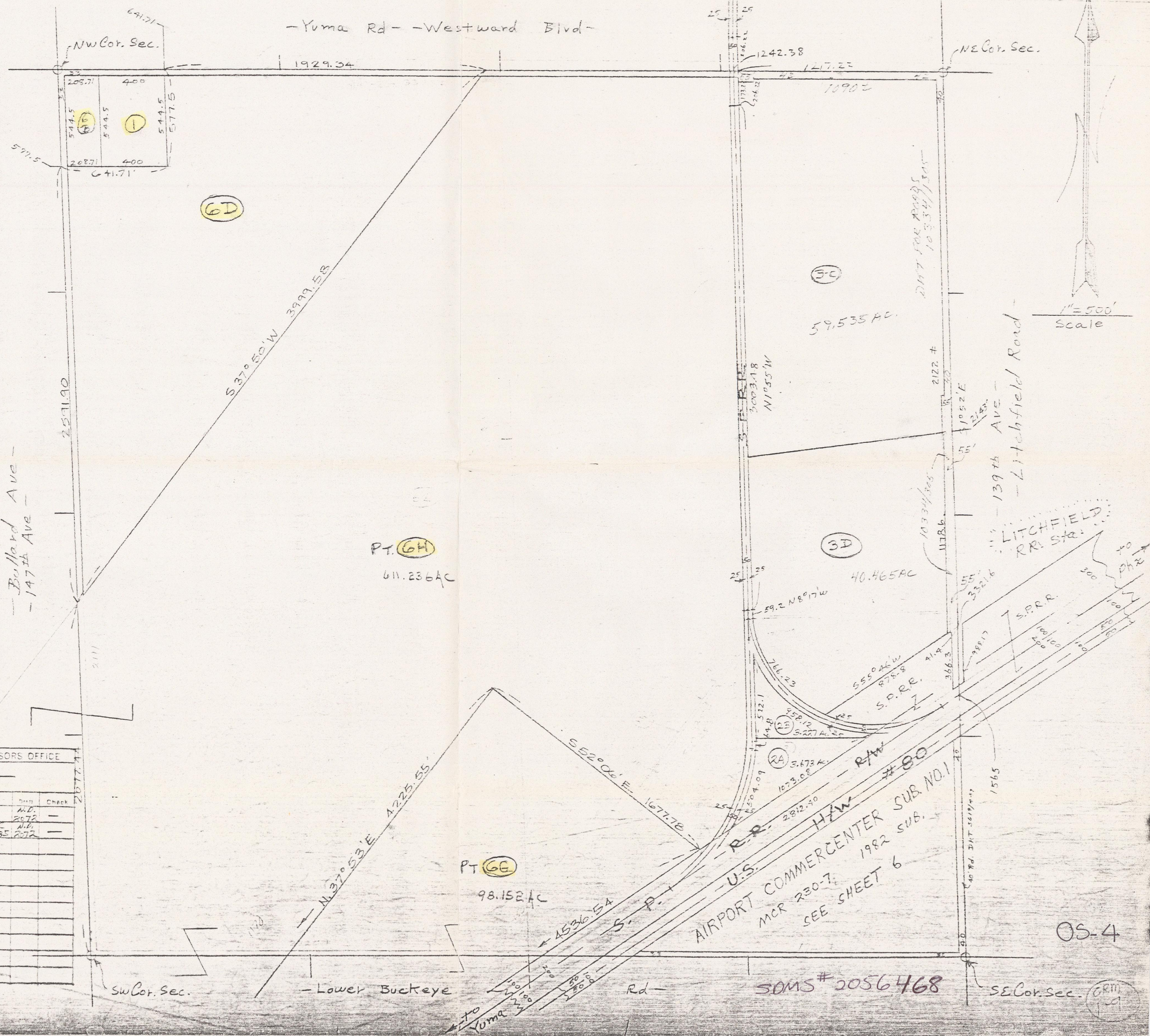
CR 90  
1-9

- LOWER BUCKEYE RD. -

SDMS# 2056468

SE COR. SEC.

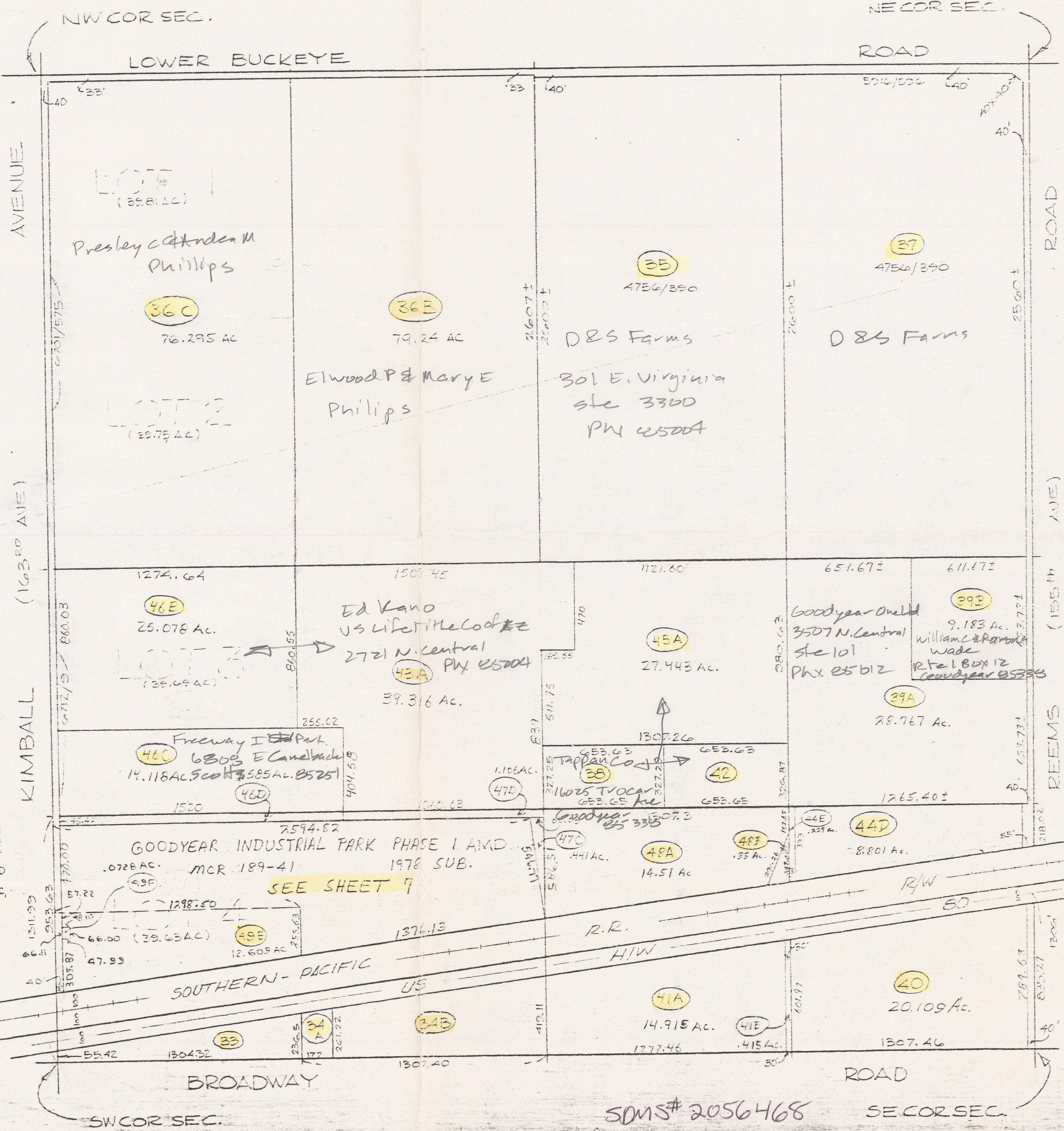




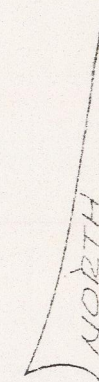


MARICOPA COUNTY ASSESSORS OFFICE  
SCALE 1" = 500'

215-85 48 48A; 3 83-494 173 2072 N.D.



1" = 500'  
SCALE



MARICOPA COUNTY ASSESSORS OFFICE  
SCALE 1" = 500'

DATE	WORK	BY	REMARKS	ACRES	VALUATION
8-29-75	49A	B/C	11256-258	2.7	2082
1-14-77	44	A/B	ANNEX 113	2072	
7-7-77	47, 49B	47, 49B	MCR 189-41	2072	
10-78	36A	B/C	13013-17	2082	
1-7-44	AB	C	ANNEX-COMM	2421	
3-2-78	40	SPLIT	13287-1446	2466	
9-15-80	49C	29E	14263-66	2082	
10-21-81	41	41A/B	15438-595	2072	
11-22-81	SEE NOTE #1		15355-484	2072	
4-2-84	39	39A/E	83-472915	2072	
7-15-85	44C	44D/E	14-72045	2072	

NOTE #1: WAS: 43, 45, 46A, 47A, 49D  
IS: 43A, 45A, 46B, 46C, 47C, 46D, 47D

05-5

CRIT 9-1







**CH2M HILL  
INDEX FORM  
FOR REM IV FILE CLOSEOUT**  
(Please print legibly or type.)

If it is more convenient, when indexing the file, complete those sections that will remain the same through the majority of the site file (nos. 1 through 8). Then photocopy this form onto colored paper (to make it more obvious in the file) and complete nos. 9 and 10 as necessary.

<b>1</b>	<b>Team Member's Name</b> JOHN LUCERO	<b>Office Location</b> RDD
<b>File Originator</b>	<b>Team Member's Firm</b> CH2M HILL <input checked="" type="checkbox"/> B&V <input type="checkbox"/> E&E <input type="checkbox"/> ICF <input type="checkbox"/> PRC <input type="checkbox"/> <b>Subcontractor</b> <input type="checkbox"/>	
<b>2</b>	<b>Site Manager's Name</b> JOHN LUCERO	<b>Office Location</b> RDD
<b>Site Manager</b>	<b>Site Manager's Firm</b> CH2M HILL <input checked="" type="checkbox"/> B&V <input type="checkbox"/> E&E <input type="checkbox"/> ICF <input type="checkbox"/> PRC <input type="checkbox"/>	
<b>3</b>	<b>Work Assignment Number</b> 030 - 9L19.0	<b>4</b>
		<b>EPA Region</b> IX
<b>5</b>	<b>Master Project Number</b> RDD63600	<b>6</b>
		<b>Project Start Date (mon/yr)</b> 04 / 1986
<b>7</b>	<b>Site Name</b> PHOENIX-GOODYEAR AIRPORT, AZ	
<b>8</b>	<b>Site Location</b> GOODYEAR, ARIZONA	
<b>9</b>	<b>Description (limited to 100 characters/spaces)</b> GROUNDWATER FILES - FOLDER 5 OF 68	
<b>Section/ Subsection</b>		
<b>10</b>	<b>Comments</b> (These comments will not become part of the indexing information.) SOME DOCUMENTS REFERENCE REM/FIT CONTRACT NO. 68-01-6692 WORK ASSIGNMENT NO. 073-9L19.0; MASTER PROJECT NO. W69219	
<b>FOR ZPMO USE</b>	<b>(Oversize Documents)</b>  OVERSIZE PAGE(S) WERE REMOVED FROM THIS RECORD FOR 35MM FILMING. SEE END OF RECORD FOR 35MM FICHE.	